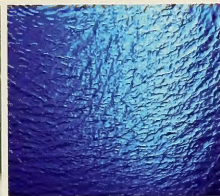




FLORIDA INTERNATIONAL UNIVERSITY



COURSE
GRADUATE
CATALOG

08
09

SW 24TH Street (Coral Way)

UNIVERSITY PARK CAMPUS

FLORIDA TURNPIKE

SW 17th Avenue

SW 107th Avenue

SW 16TH ST.

SW 8th Street

SW 8th St. (Tamiami Trail)



AAFC	Athletics Academic Fitness Center	K5	FS	Football Stadium	G2	PCA	Paul L. Cejas School of Architecture	F7	UH	University House	B4
BBS	Baseball Stadium	J4	GH	Graham Library	D6	PCB	Baseball Practice Facility	D3	UHSC	University Health Services Complex	G5
CFES	Children's Creative Learning Center	K5	GL	Green Library	B3	PCG	Gold Parking Garage	D4	UPA	University Park Apartments	F3
CH	Carlos Finlay Elementary School	F7	GLS	Health & Life Sciences I & II	C5	PCP	Panther Parking Garage	D8	UPH	University Park Towers	F4
COL	College of Health	H5	LH	Labor Center/ELI	G5	PH	Panther Residence Hall	G3	W3	Veritas Haus	J3
CSC	College of Law	C7	LC	Lakeview Residence Housing	F3	PPFAM-PC	Frost Art Museum (Ground Floor, PC)E4	G3	W01C	Ceramics	J3
CP	Chemistry & Physics	J4	MARC	Management and Advanced Research Center	E4	PPFAM	Frost Art Museum (Upper Floors, PC)E4	G3	W3	Key Control	J3
CUI	Campus Support Complex	F5	NOAA	National Hurricane Center	K4	RB	Ryder Business Building	E3	W10	Graduate Studios - Visual Arts	L5
DN	Duplicating Center	G4	OC	Office of the President	D6	RC	Recreation Center	E3	W10A	ROTC-Reserve Officer Training Corps	L5
DN	Duane Mason	F5	PC	Charles Perry Bldg. (Primera Casa)	D6	RB	Recreation Center	E3	WC	Warren Conservatory	D7
DN	Engineering & Computer Science	E7	PC	Charles Perry Bldg. (Primera Casa)	E4	TWR	Tower (Public Safety)	J7	WPAC	Warren Performing Arts Center	E2
EH	Evangeline Residence Hall	F3	PC	Charles Perry Bldg. (Primera Casa)	E4				ZEB	Ziff Education Building	G7

FLORIDA INTERNATIONAL UNIVERSITY

UNIVERSITY PARK CAMPUS

11200 SW 8th Street
Miami, Florida 33199
305-348-2000

BISCAYNE BAY CAMPUS

3000 NE 151st Street
North Miami, Florida 33181
305-919-5500

FIU BROWARD-PINES CENTER

17195 Sheridan Street
Pembroke Pines, Florida 33331
954-438-8600

ENGINEERING CENTER

10555 W. Flagler Street
Miami, Florida 33174
305-348-3034

EMERGENCY - DIAL 911

AREA CODES:

University Park phone numbers begin with area code 305

Biscayne Bay phone numbers begin with area code 305

FIU Broward-Pines Center phone numbers begin with area code 954

Engineering Center numbers begin with area code 305

From any FIU campus, dial FIU numbers direct:

All University Park phone numbers 7-xxxx

All Biscayne Bay phone numbers 6-xxxx

All FIU Broward-Pines Center phone numbers 6-xxxx

All Engineering Center numbers 7-xxxx

FLORIDA INTERNATIONAL UNIVERSITY

Member of the State University System
Miami, Florida

2008-2009 UNIVERSITY GRADUATE CATALOG

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Note: The programs, policies, requirements, regulations published in this catalog are continually subject to review in order to serve the needs of the University's various constituencies and to respond to the mandates of the State Board of Education and the Florida Legislature. Changes in programs, policies, requirements, and regulations may be made without advanced notice. **The ultimate responsibility for knowing degree requirements rests with students.**

Fees given in this catalog are tentative pending legislative action.

MAILING ADDRESS GRADUATE ADMISSION

Florida International University
Graduate Admissions Office
P.O. Box 659004
Miami, Florida 33265-9004

MAILING ADDRESS UNIVERSITY GRADUATE SCHOOL

Florida International University
University Graduate School
University Park, PC 230
Miami, Florida 33199

UNIVERSITY GRADUATE SCHOOL WEBSITE: <http://gradschool.fiu.edu> **Email Address:** ugs@fiu.edu
GRADUATE ADMISSIONS OFFICE WEBSITE: <http://gradschool.fiu.edu> **Email Address:** gradadm@fiu.edu
ONLINE APPLICATIONS: <http://gradschool.fiu.edu>

Academic Calendar 2008-2009

FALL

August 25 – December 13

Final Week of the Semester: December 8 – 13

February 6 Wednesday	Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Fall 2008). Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Summer 2009).
March 14 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Spring 2009).
April 1 Tuesday	Last day for international graduate students to submit admission, readmission and certificate applications.
April 29 Tuesday	Last day for international undergraduate students to submit applications. Last day for beginning Freshmen to submit applications.
May 5 Monday	Undergraduate Studies Advising for Fall 2007 term resumes.
May 19 Monday	Transfer Orientation (University Park Campus afternoon session).
May 30 Friday	Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores. Last day for transfer undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable. Last day for domestic graduate students to submit admission, readmission and certificate applications and all supporting academic credentials and appropriate test scores, if applicable.
June 1 Sunday	Last day for international graduate students to submit all supporting academic credentials and appropriate test scores, if applicable.
June 2 Monday	First day to apply for Fall term graduation.
June 6 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Spring 2009). Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Fall 2009).
June 30 Monday	Last day to submit Undergraduate Readmission applications for priority consideration to the University.
June 30 & July 1 Mon. & Tues.	Freshman Orientation (Honors College only; University Park Campus).
July 2 Wednesday	Transfer Orientation (University Park Campus).
July 7 & 8 Monday & Tuesday	Freshman Orientation (University Park Campus).
July 8 Tuesday	Transfer Orientation (Biscayne Bay Campus).
July 10 & 11 Thursday & Friday	Freshman Orientation (Biscayne Bay Campus).
July 10 Thursday	Transfer Orientation (University Park Campus).
July 11 Friday	Transfer Orientation (University Park Campus).
July 11 Friday	Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Fall 2008).
July 11 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Summer 2009).
July 14 & 15 Monday & Tuesday	Freshman Orientation (University Park Campus).
July 17 & 18 Thursday & Friday	Freshman Orientation (University Park Campus).
July 18 Friday	Transfer Orientation (Biscayne Bay Campus).
July 21 Monday	Transfer Orientation (University Park Campus).
July 22 Tuesday	Transfer Orientation (University Park Campus).
July 24 & 25 Thursday & Friday	Freshman Orientation (University Park Campus & Biscayne Bay Campus).
July 26 Saturday	Transfer Orientation (University Park Campus).
July 28 Monday	Registration Information and Access Codes available to returning undergraduate students and graduate students for Fall 2008 term.
July 28 & 29 Mon. & Tues.	Freshman Orientation (University Park Campus).
July 31 & Aug 8 Thursday & Friday	Official Registration for Degree-Seeking Students only, by appointment time and day.
July 31 Thursday	Transfer Orientation (University Park Campus).
August 1 Friday	Transfer Orientation (University Park and Biscayne Bay Campus).
August 4 & 5 Monday & Tuesday	Freshman Orientation (University Park Campus and Biscayne Campus).
August 7 Thursday (Evening)	Transfer Orientation (University Park Campus).
August 8 Friday	Transfer Orientation (University Park Campus).
August 11 & 12 Mon & Tues	Freshman Orientation (University Park Campus).

August 11–20 Mon – Wed

August 11 Monday
 August 13 Wednesday
 August 14 Thursday
 August 15 Friday
August 18 Monday
 August 18 Monday

August 18 & 19 Mon & Tues

August 19 & 20 Tues & Wed

August 20 Wednesday

August 20 Wednesday
 August 22 – 24 Fri. - Sun.
 August 22 Friday

August 24 Sunday
August 25 Monday
 August 28 Thursday
 August 29 Friday

September 1 Monday
September 2 Tuesday

September 5 Friday

September 8 Monday
September 19 Friday

September 19 Friday
 October 3 Friday

October 4 Saturday

Oct. 13 – 17 Monday – Friday
 October 13 Monday
 October 14 Tuesday
 October 17 Friday
October 17 Friday

October 23 Thursday

October 30 Thursday
 November 6 Thursday

November 11 Tuesday
 November 13 Thursday

Open Registration for Degree -seeking Students. Continuous Web & Kiosk Registration.

Short Term Tuition Loan Applications available.
 Transfer Orientation (Pines Center).
 Transfer Orientation (University Park Campus).
 Transfer Orientation (University Park Campus).

Non-Degree student registration begins.

Graduate Orientation (University Park). Early Housing Check -in available 8/18 from 9 AM – 5 PM.*

Transfer Orientation (Biscayne Bay Campus). Early Housing Check -in available 8/18 from 9 AM – 5 PM.*

Freshman Orientation (University Park Campus). Early Housing Check -in available 8/18 from 9 AM – 5 PM.*

Freshman Orientation (Biscayne Bay Campus). Early Housing Check -in available 8/18 from 9 AM – 5 PM.*

Last day to pay tuition and fees to avoid cancellation of enrollment.

Last day to register without incurring a \$100 late registration fee. Any class added after August 20 must be paid for on the same day to avoid a \$100 late payment fee.

Last day for students to apply for a Short Term Tuition Loan.**Transfer Orientation (University Park and Biscayne Bay Campus).**

New Faculty Orientation (Academic Affairs).

Official Housing Check -In (9 AM - 6 PM).

International Student Immigration Orientation (University Park and Biscayne Bay Campus). Early Housing Check -in available 8/21 from 9 AM – 5 PM.*

National Student Exchange Orientation (University Park and Biscayne Bay Campus).

Early Housing Check -in available 8/21 from 9 AM – 5 PM.*

Freshman Convocation (Required of All Freshmen)

Classes begin.

Freshman Luau (Biscayne Bay Campus at noon).

Last day to have passed C AT-CLAST (computer version of ELS, Reading, and Math subtests) for Fall Graduation.

Labor Day Holiday (University Closed).**Last day to complete late registration.**

Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring a financial liability.

Last day to change a grading option.

Last day to register for the CLAST exam (paper -pencil version) on October 4. Last day to register for the CLAST Essay subtest in time for Spring 2009 Graduation.

Undergraduate Studies Advising Begins for Spring 2009/Summer 2009 terms.

Last day to apply for graduation at the end of Fall 2008 term. All four subtests of CLAST must be satisfied and reflected in official University records.

Last day to withdraw from the University with a 25% refund of tuition.

Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Summer 2009).

Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Spring 2010).

CLAST Examination (paper -pencil version). Last day to take the CLAST Essay subtest for Spring 2009 Graduation.

Faculty Convocation Week.

Honors College Convocation.

Faculty Convocation (Biscayne Bay Campus).

Faculty Convocation (University Park Campus).

Deadline to drop a course with a DR grade.**Deadline to withdraw from the University with a WI grade.**

Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense.

Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.

Return of Title IV deadline for financial aid recipients.

Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Spring 2009).

Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Fall 2009).

Veterans' Day Holiday (University Closed).

Last day to hold thesis/dissertation defense.

November 14 Friday

Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.

November 27 & 28

Thanksgiving Holiday (University Closed).

November 29 Saturday

No Saturday Classes.

December 4 Thursday

Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation.

Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.

December 8-13 Monday

Final Week of the semester - modified class schedule:

-Saturday

Final exams and other course assessment activities are scheduled during this week.

December 8 Monday

Grade rosters available to faculty for grade entry and submission.

December 13 Saturday

On-Campus exams for on-line courses.

December 15 & 16 Mon. & Tues.

Commencement Exercises.

December 17 Wednesday

Deadline (by 11:59 pm) for faculty to submit grades.

December 18 Thursday

Complete grade report available to students by web and at kiosks.

December 25 Thursday

Christmas Holiday (University Closed).

December 26 Friday

Winter Break (University Closed).

January 1 Thursday

New Year's Holiday.

January 2 Friday

Winter Break (University Closed).

SPRING**January 5 – April 25**

Final Week of the Semester April 20 - 25

August 30 Saturday

Last day for international undergraduate students to submit applications.

Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores.

September 1 Monday

Last day for international graduate students to submit online admission, readmission, and certificate applications.

September 8 Monday

Undergraduate Studies Advising for Spring 2009/Summer 2009 term begins.

September 29 Monday

Last day for undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable.

October 1 Wednesday

Last day for domestic graduate students to submit admission, readmission and certificate applications and all supporting academic credentials and appropriate test scores, if applicable.

Last day for international graduate students to submit all supporting academic credentials and appropriate test scores, if applicable.

October 6 Monday

First day to apply for Spring 2009 term graduation.

November 3 Monday

Registration Information and Access Codes available to returning undergraduate students and graduate students for Spring 2009 term.

Transfer Orientation (Biscayne Bay Campus).

Last day to submit undergraduate readmission applications for priority consideration to the University.

November 4 & 5 Tues & Wed

Freshman Orientation (Biscayne Bay Campus).

November 6 Thursday

Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Spring 2009).

Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Fall 2009.)

November 11 Tuesday

Veterans' Day Holiday (University Closed).

November 12 Wednesday

Transfer Orientation (University Park Campus).

November 13-26 Thur.-Wed.

Official registration for degree-seeking students by appointment time and day.

November 27-28 Thur.-Fri.

Thanksgiving Holiday (University Closed). Continuous web & kiosk registration.

Nov 24- Jan. 1

Open registration (Degree-Seeking Students). Continuous web & kiosk registration.

December 1 Monday

Transfer Orientation (University Park Campus - Evening Session).

December 10 Wednesday

Transfer Orientation (Pines Center).

December 12 Friday

Transfer Orientation (University Park Campus).

December 14 Monday

Short Term Tuition Loan Applications available.

December 18 Thursday

Freshman and Transfer Orientation (Biscayne Bay Campus)

December 25 Thursday

Christmas Holiday (University Closed).

December 26 Friday

Winter Break (University Closed).

December 29 Monday

Transfer Orientation (University Park Campus). Early Housing Check-in available 12/29 from 9 AM-5PM*

December 30 Tuesday

Graduate Orientation. Early Housing Check-in available 12/29, 9 AM-5PM*

December 30 Tuesday	Freshman Orientation (University Park Campus). Early Housing Check-in available 12/29, 9 AM-5PM*
December 31 Wednesday	Last day to pay tuition and fees in-person to avoid cancellation of enrollment. Online payment available until January 2. Last day to register in-person without incurring a \$100.00 late registration fee. Online registration available until January 2. Last day for students to apply for a Short Term Tuition Loan. Non-degree-seeking student registration begins. New Year's Day Holiday (University Closed). Winter Break (University Closed). Financial Aid Applications available for 2008-2009.
December 31 Wednesday	
January 1 Thursday	Last day to pay tuition and fees on-line, to avoid cancellation of enrollment. Last day to register without incurring a \$100.00 late registration fee. FAFSA Applications for 2009-2010 available at www.fafsa.ed.gov
January 2 Friday	
January 2 Friday	Official Housing Check-In (9 am - 6 pm).
January 2 Friday	Classes begin.
January 3 & 4 Sat & Sun.	National Student Exchange Orientation (University Park).
January 5 Monday	National Student Exchange Orientation (Biscayne Bay Campus).
January 6 Tuesday	International Student Immigration Orientation (University Park and Biscayne Bay Campus).
January 7 Wednesday	Last day to complete late registration.
January 9 Friday	Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring financial liability. Last day to change grading option.
January 12 Monday	International Student Immigration Orientation (University Park and Biscayne Bay Campus).
January 14 Wednesday	Martin Luther King Holiday (University Closed).
January 19 Monday	Undergraduate Studies Advising for Summer 2009/Fall 2009 terms begins.
January 20 Tuesday	Last day for International Students to submit applications for Summer term admission.
January 23 Friday	Last day to register for the CLAST exam (paper-pencil version) on February 21.
	Last day to register for the CLAST Essay subtest in time for Summer 2009 Graduation.
	Last day to have passed CAT-CLAST (computer version of ELS, Reading, and Math subtests) for Spring 2009 Graduation.
January 30 Friday	Last day to withdraw from the University with a 25% refund of tuition.
February 1 Sunday	Last day for international graduate students to submit online applications for Summer term admission.
February 9 Monday	Last day to apply for graduation at the end of Spring 2008 term. All four subtests of CLAST must be satisfied and reflected in official University records.
February 21 Saturday	CLAST Exam (paper pencil version). Last day to take the CLAST Essay subtest for Summer 2009 Graduation.
February 23 Monday	Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Fall 2009).
	Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Summer 2010).
February 27 Friday	Last day to drop a course with a DR grade. Last day to withdraw from the University with a WI grade.
March 1 Sunday	Last day for domestic graduate students to submit online admission, readmission, and certificate applications and all supporting academic credentials and appropriate test scores, if applicable.
	Last day for international graduate students to submit all supporting academic credentials and appropriate test scores, if applicable.
March 5 Thursday	Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense.
	Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.
March 13 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Spring 2010).
	Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Summer 2009).
March 13 Friday	Return of Title IV deadline for financial aidrecipients.
March 16 - 21 Mon. - Sat.	Spring Break.
March 26 Thursday	Last day to hold thesis/dissertation defense.
March 27 Friday	Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.

April 16 Thursday

Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation.

April 20 - 25 Mon. - Sat.

Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.

Final week of the semester - modified class schedule: Final exams and other course assessment activities are scheduled during this week.

April 25 Saturday

On-campus exams for on-line courses.

April 20 Monday

Grade rosters available to faculty for grade entry and submission.

April 27 & 28 Mon. & Tues

Commencement Exercises.

April 29 Wednesday

Deadline (by 11:59 pm) for faculty to submit grades.

April 30 Thursday

Complete grade report available to students by web and at kiosks.

May 15 Friday

College of Law Commencement.

SUMMER

May 4 - August 8

TERM A

May 4 - June 18

January 20 Tuesday

Undergraduate Studies Advising for Summer 2009/Fall 2009 terms begins.

January 30 Friday

Last day for international graduate students to submit admission, readmission, and certificate applications.

February 1 Sunday

Last day for international undergraduate students to submit applications.

February 9 Monday

Last day for international graduate students to submit online admission, readmission, and certificate applications.

February 23 Monday

First day to apply for Summer 2009 term graduation.

Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Fall 2009).

Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Summer 2010).

March 1 Sunday

Last day for domestic graduate students to submit admission, readmission, and certificate applications and all supporting academic credentials and appropriate test scores, if applicable.

Last day for international graduate students to submit all supporting academic credentials and appropriate test scores, if applicable.

March 2 Monday

Last day to submit undergraduate Readmission applications for priority consideration to the University.

March 13 Friday

Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Spring 2010).

Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Summer 2009).

March 27 Friday

Transfer Orientation (Biscayne Bay Campus).

March 30 Monday

Registration Information and Access Codes available to all returning undergraduate students and all graduate students for Summer 2009 term.

March 31 Tuesday

Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores.

Last day for undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable.

April 2-15

Official registration for degree-seeking students by appointment time and day.

April 2 Thursday

Transfer Orientation (University Park Campus).

April 7 Tuesday

Transfer Orientation (University Park Campus – Evening session).

April 8 Wednesday

Transfer Orientation (Pines Center).

April 16-May 1

Open registration (Degree-Seeking Students). Continuous web & kiosk registration.

April 24 Friday

Short Term Tuition Loan Applications available.

April 29 Wednesday

Non-degree-seeking student registration begins.

April 30 Thursday

Transfer Orientation (University Park Campus).

International Student Immigration Orientation (Biscayne Bay Campus). Early Housing Check-in available 4/30 from 9 AM-5 PM.*

International Student Immigration Orientation (University Park). Early Housing Check-in available 4/30 from 9 AM-5 PM.*

Last day to have passed CAT-CLAST (computer version of ELS, Reading, and Math subtests) for Summer 2009 Graduation.

May 1 Friday

	<p>Last day to pay tuition and fees for all Summer A, B and C classes added by May 2 to avoid cancellation.</p> <p>Last day to register without incurring a \$100 late registration fee. Any class added after May 2 must be paid for on the same day to avoid a \$100 late payment fee.</p> <p>Transfer Orientation (Biscayne Bay Campus).</p> <p>Last day for students to apply for a Short Term Tuition Loan.</p> <p>Official Housing Check-In (9 am - 6 pm).</p> <p>Classes begin.</p> <p>Undergraduate Studies Advising for Summer B 2009/Fall 2009 terms resumes.</p> <p>Last day to register for the CLAST exam (paper-pencil version) on June 6. Last day to register for the CLAST Essay subtest in time for Fall 2009 Graduation.</p> <p>Last day to complete late registration.</p> <p>Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring financial liability.</p> <p>Last day to change grading option.</p> <p>Last day to withdraw from the University with a 25% refund of tuition.</p> <p>Last day to apply for graduation at the end of Summer 2009. All four sub tests of CLAST must be satisfied and reflected in official University records.</p> <p>Memorial Day Holiday (University Closed).</p> <p>Last day to drop a course with a DR grade.</p> <p>Last day to withdraw from the University with a WI grade.</p> <p>Return of Title IV Deadline for Financial Aid Recipients for Summer "A" Term.</p> <p>Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.</p> <p>Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Spring 2010).</p> <p>Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Fall 2010).</p> <p>CLAST Examination (paper-pencil version). Last day to take the CLAST Essay sub test for Fall 2009 Graduation.</p> <p>Grade rosters available to faculty for grade entry and submission.</p> <p>Classes end.</p> <p>On-campus exams for on-line courses.</p> <p>Deadline (by 11:59 pm) for faculty to submit grades.</p> <p>Complete grade report available to students by web and kiosks. **</p>
May 1-3 Fri.-Sun.	
May 4 Monday	
May 8 Friday	
May 11 Monday	
May 15 Friday	
May 22 Friday	
May 25 Monday	
May 27 Wednesday	
May 29 Friday	
June 5 Friday	
June 5 Friday	
June 6 Saturday	
June 17-22 Wed.-Mon	
June 18 Thursday	
June 19 Friday	
June 22 Monday	
June 23 Tuesday	

TERM B

June 24 - August 8

January 30 Friday	Last day for international undergraduate students to submit applications.
February 1 Sunday	Last day for international graduate students to submit admission, readmission and certificate applications.
February 23 Monday	Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Fall 2009).
March 1 Sunday	Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Summer 2010).
March 13 Friday	Last day for domestic graduate students to submit admission, readmission, and certificate applications and supporting academic credentials and appropriate test scores, if applicable.
March 27 Friday	Last day for international graduate students to submit all supporting academic credentials and appropriate test scores.
March 31 Tuesday	Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Spring 2010).
April 2 Thursday	Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Summer 2009).
April 7 Tuesday	Transfer Orientation (Biscayne Bay Campus).
April 30 Thursday	Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores.
May 1 Friday	Transfer Orientation (University Park Campus).
	Transfer Orientation (University Park Campus – Evening session).
	Transfer Orientation (University Park Campus).
	Transfer Orientation (Biscayne Bay Campus).

May 4 Monday
May 22 Friday

June 1 Monday

June 1 & 2 Mon. & Tues.
June 4 & 5 Thurs. & Fri.
June 5 Friday

June 8 & 9 Mon. & Tues.
June 11 & 12 Thurs. & Fri.
June 15 & 16 Mon. & Tues.
June 19 Friday
June 22 & 23 Monday & Tuesday

June 23 Tuesday

June 23 Tuesday**June 24 Wednesday**

June 26 Friday

July 1 Wednesday

July 3 Friday
July 4 Saturday
July 7 Tuesday
July 10 Friday

July 17 Friday
July 17 Friday

July 21 Tuesday
July 24 Friday

August 6-14 Thurs.-Fri
August 7 Friday

August 8 Saturday
August 8 Saturday
August 14 Friday
August 15 Saturday

Undergraduate Studies advising begins for Summer B 2009; Fall 2009 advising resumes
Last day to submit undergraduate Readmission applications for priority consideration to the University.

Summer "B" Term registration resumes.

Freshman Orientation (University Park Campus).
Freshman Orientation (University Park Campus).
Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Spring 2010).
Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Fall 2010).
Freshman Orientation (University Park Campus and Biscayne Bay Campus).
Freshman Orientation (University Park Campus and Biscayne Bay Campus).
Freshman Orientation (University Park Campus).
Transfer Orientation (University Park Campus and Biscayne Bay Campus).
Official Housing Check-In 9 am to 6 pm for Summer Term B.
Freshman Orientation (University Park Campus).
International Student Immigration Orientation (University Park & Biscayne Bay Campus).

Last day to pay tuition and fees to avoid cancellation of enrollment.

Last day to register without incurring a \$100 late registration fee.

Any class added after June 24 must be paid for on the same day to avoid a \$100 late payment fee.

Last day for students to apply for a Short Term Tuition Loan.

Classes begin.

Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense.

Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.

Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring a financial liability.

Last day to change grading option.

Last day to complete late registration.

Independence Day observed (University closed).

Independence Day (University closed).

Last day to withdraw from the University with a 25% refund of tuition.

Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Summer 2010).

Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Fall 2009).

Last day to hold thesis/dissertation defense.

Last day to drop a course with a DR grade.

Last day to withdraw from the University with a WI grade.

Return of Title IV Deadline for Financial Aid Recipients for Summer "B" Term.

Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.

Grade rosters available to faculty for grade entry and submission.

Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation.

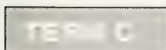
Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.

Classes end.

On-campus exams for on-line courses.

Deadline (by 11:59 pm) for faculty to submit grades.

Complete grade report available to students by web and kiosks.



May 4 - August 8

January 30 Friday

Last day for international graduate students to submit admission, readmission and certificate applications.

Last day for international undergraduate students to submit applications.

Last day for international undergraduate students to apply for readmission to the University.

February 1 Sunday	Last day for international graduate students to submit online admission, readmission, and certificate applications.
February 10 Monday	First day to apply for Summer 2009 term graduation.
February 23 Monday	Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Fall 2009).
	Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Summer 2010).
February 28 Saturday	Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores.
	Last day for undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable.
March 1 Sunday	Last day for domestic graduate students to submit admission, readmission, and certificate applications and supporting academic credentials and appropriate test scores, if applicable.
	Last day for international graduate students to submit all supporting academic credentials.
March 2 Monday	Last day to submit undergraduate Readmission applications for priority consideration to the University.
March 13 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Spring 2010).
	Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Summer 2009).
March 27 Friday	Transfer Orientation (Biscayne Bay Campus).
March 30 Monday	Registration information and access codes available to all returning undergraduate and graduate students for Summer 2008 term.
	Transfer Orientation (University Park Campus).
April 2 Thursday	Official registration for degree-seeking students by appointment time and day.
April 2 - 15 Thurs - Wed	Transfer Orientation (University Park – Evening session).
April 7 Tuesday	Transfer Orientation (Pines Center).
April 8 Wednesday	Open registration (Degree-Seeking Students). Continuous web & kiosk registration.
April 16- May 1	Short Term Tuition Loan Applications available.
April 24 Friday	Non-degree-seeking student registration begins.
April 29 Wednesday	Transfer Orientation (University Park Campus).
April 30 Thursday	International Student Immigration Orientation (Biscayne Bay Campus). Early Housing Check-in available 4/30 from 9 AM-5 PM.*
	International Student Immigration Orientation (University Park). Early Housing Check-in available 4/30 from 9 AM-5 PM.*
May 1 Friday	Last day to have passed CAT-CLAST (computer version of ELS, Reading, and Math subtests) for Summer 2009 Graduation.
	Last day to pay tuition and fees to avoid cancellation of enrollment.
May 1 Friday	Last day to register without incurring a \$100 late registration fee. Any class added after May 2 must be paid for on the same day to avoid a \$100 late payment fee.
	Transfer Orientation (Biscayne Bay Campus).
	Last day for students to apply for a Short Term Tuition Loan.
	International Student Immigration Orientation (University Park and Biscayne Bay Campus).
	Early Housing Check-In available 4/30 from 9 AM – 5 PM.*
	Official Housing Check-In 9 am to 6 pm for Summer Term C.
May 1-3 Fri.-Sun.	Classes begin.
May 4 Monday	Undergraduate Studies Advising for Fall 2009/Spring 2010 term resumes.
May 4 Monday	Last day to register for the CLAST exam (paper-pencil version) on June 6. Last day to register for the CLAST Essay subtest in time for Fall 2009 Graduation.
May 8 Friday	Last day to complete late registration.
	Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring financial liability.
May 11 Monday	Last day to change grading option.
	Last day to apply for Summer 2009 graduation. All four subtests of CLAST must be satisfied and reflected in official University records.
May 22 Friday	Memorial Day Holiday (University Closed).
	Last day to withdraw from the University with a 25% refund of tuition.
May 25 Monday	Last day to submit FORM M1: Appointment of Thesis Committee (Master's students planning to graduate in Spring 2010).
June 1 Monday	Last day to submit FORM D1: Appointment of Dissertation Committee (Doctoral students planning to graduate in Fall 2010).
June 5 Friday	CLAST Examination (paper-pencil version). Last day to take the CLAST Essay subtest for Fall 2009 Graduation.
June 6 Saturday	

June 26 Friday	Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense.
	Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.
June 23 Tuesday	Last day to drop a course with a DR grade.
	Last day to withdraw from the University with a WI grade.
July 1 Wednesday	Return of Title IV deadline for financial aid recipients for Summer "C" Term.
July 3 Friday	Independence Day observed (University closed).
July 4 Saturday	Independence Day (University closed).
July 10 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (Doctoral students planning to graduate in Summer 2010).
	Last day to submit FORM M2: Master's Thesis Proposal (Master's students planning to graduate in Fall 2009).
July 17 Friday	Last day to hold thesis/dissertation defense.
July 24 Friday	Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.
August 6-14	Grades rosters available to faculty for grade entry and submission.
August 7 Friday	Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation.
	Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.
August 8 Saturday	Classes end.
August 8 Saturday	On-campus exams for on-line courses.
August 14 Friday	Deadline (by 11:59 pm) for faculty to submit grades.
August 15 Saturday	Complete grade report available to students by web and kiosks.
August 24 Monday (Fall 2009)	Fall 2009 semester classes begin.

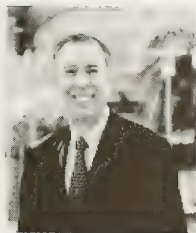
*Early Housing Check-in is available **ONLY** for residents registered for these Orientations **AND** who live outside Dade and Broward Counties.

**Grades will be posted on transcripts. However, graduation will not be processed until the end of the Complete Summer C Term.

Calendar dates are subject to change. Please contact appropriate offices for verification and updates. University Graduate School deadlines are available at <http://gradschool.fiu.edu>.

This calendar includes official University holidays. Faculty are encouraged to make accommodations for students who wish to observe religious holidays. Students should make their requests known at the beginning of the semester.

For a listing of religious holidays you may visit <http://www.interfaithcalendar.org>.



**PRESIDENT
MODESTO A. MAIDIQUE**

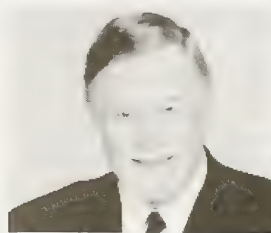
Dear Graduate Students:

Welcome to Florida International University. In this Course catalog we provide a broad overview of our institution, including information to guide you through your academic experience.

As a leading public research university located in one of the nation's most exciting international cities, FIU offers a unique combination of resources, personal attention and affordability. With more than 200 baccalaureate, master's and doctoral degree programs—as well as a nationally renowned faculty and an intimate learning environment—we prepare our students for the leading job markets and the latest technologies. Committed to both quality and access, FIU meets the educational needs of traditional students, as well as those of increasing numbers of part-time students and lifelong learners. FIU has a nationally and internationally distinguished full-time faculty recognized for outstanding teaching and cutting-edge research. Our students, faculty and alumni continually receive national and international recognition for their achievements.

Ranked as a Research University in the High Research Activity category of the Carnegie Foundation's prestigious classification system and FIU is a member of Phi Beta Kappa, the nation's oldest and most distinguished academic honor society. In March 2006, FIU received approval from the Florida Board of Governors to create a College of Medicine. In establishing South Florida's only public medical school, the university is continuing its tradition of addressing critical community challenges. The inaugural class will join us in August 2009, allowing FIU's College of Medicine to begin transforming medical education and health care in the region and further enhance the university's research mission.

Graduate education is central to the research core of FIU's mission. Our graduate students, under the expert guidance of our faculty, are making major contributions to the intellectual discourse in many disciplines. Graduates from our professional schools and colleges have become leaders in corporate, nonprofit and governmental sectors throughout the world. Whatever your intellectual desires and career objectives may be, you will find the resources and opportunity to fulfill your personal and professional goals at FIU.



**DEAN
GEORGE E. WALKER**

Dear Graduate Students:

As our world becomes more complex and occupations more specialized, an increasing number of students decide to enter graduate school. Here they obtain the training necessary to enter satisfying, long-term careers, and learn the basis of critical thinking which will enable them to continue to grow intellectually. It is for these reasons that increasing numbers of employers demand graduate training as a credential for employment and for advancement.

At Florida International we offer a wide range of graduate programs to satisfy virtually every personal or professional pursuit. We have over 100 graduate degree programs including an extensive array of doctoral, masters and graduate-level certificate programs. Florida International University is a young, vibrant and diverse university with a graduate population of 6200 students and an overall enrollment of over 38,600 students. We have an active Graduate Student Association and other avenues for graduate involvement on campus through the University Graduate School and other student services offices.

We have assembled an outstanding graduate faculty, and as a result our graduate programs have achieved international recognition. The abilities of our faculty have attracted a very talented graduate student body. Because much learning at the graduate level is through interaction with one's peers, the able and diverse nature of our graduate students provide important and ample opportunities for intellectual discussions and for the honing of research skills.

Florida International University also offers the infrastructure necessary for graduate work at the cutting edge of research. We have modern, well equipped laboratories, and ample computer facilities and support. We also boast one of the largest libraries in the State University System. All of this is available to our graduate students to help them achieve their goals in a timely manner and obtain the postgraduate appointments they desire.

The University Graduate School provides support services to our graduate students. The Graduate Catalog lists the full range of programs and courses as well as helpful information concerning University services. We welcome you to our graduate school and to graduate education at one of the world's most exciting and dynamic universities.

UNIVERSITY INFORMATION

University Mission

Florida International University is an urban, multi-campus, research university serving southeast Florida, the state, the nation, and the international community. Our mission is to impart knowledge through excellent teaching, promote public service, discover new knowledge, solve problems through research, and foster creativity.

UNIVERSITY VALUES STATEMENT

As an institution of higher learning, Florida International University is committed to:

- Freedom of thought and expression
- Excellence in teaching and in the pursuit, generation, dissemination, and application of knowledge
- Respect for the dignity of the individual
- Respect for the environment
- Honesty, integrity and truth
- Diversity
- Strategic, operational, and service excellence

THE UNIVERSITY

Florida International University – Miami's public research university – is one of America's most dynamic institutions of higher learning. Since opening in 1972, FIU has achieved many benchmarks of excellence that have taken other universities more than a century to reach. FIU, a member institution of the State University System of Florida, was established by the Florida Legislature in 1965. Classes began in September 1972, with 5,667 students enrolled in upper division and graduate programs – the largest opening day enrollment in U.S. collegiate history. In 1984, FIU received authority to begin offering degree programs at the doctoral level. The Carnegie Foundation for the Advancement of Teaching ranks FIU as a Research University in the High Research Activity Category.

Modesto A. (Mitch) Maidique is FIU's fourth president. Appointed in 1986, the former Harvard Business School professor and high-tech entrepreneur received his Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology and was associated with MIT, Harvard, and Stanford for 20 years. President Maidique has built on the sound foundation laid by his predecessors – Charles E. Perry, FIU's first president, appointed in July 1969; Harold B. Crosby, who succeeded in June 1976; and Gregory B. Wolfe, named the third president in February 1979.

FIU has nationally and internationally renowned faculty known for their outstanding teaching and cutting-edge research; students from throughout the U.S. and more than 130 foreign countries; and alumni who have risen to prominence in every field and are a testament to the University's academic excellence. The University is a member of Phi Beta Kappa, the nation's oldest and most distinguished academic honor society. Florida International University offers more than 190 baccalaureate, master's and doctoral degree programs in 23 colleges and schools: College of Architecture and the Arts (School of Architecture, School of Art and Art History, School of Music, School of Theatre, Dance, and Speech Communication); College of Arts and Sciences; College of

Business Administration (School of Accounting, Chapman Graduate School); College of Education; College of Engineering and Computing (School of Computing and Information Sciences); College of Nursing and Health Sciences; College of Social Work, Justice, and Public Affairs (School of Criminal Justice, School of Public Administration, School of Social Work); Honors College; Robert Stempel School of Public Health; School of Journalism and Mass Communication; School of Hospitality and Tourism Management; College of Law; and the University Graduate School.

FIU has more than 38,614 students, 1,180 full-time faculty, and more than 146,000 alumni, making it the largest university in South Florida and placing it among the nation's largest colleges and universities. The University has two campuses – University Park in western Miami-Dade County and the Biscayne Bay Campus in northeast Miami-Dade County – and an educational facility at the Pines Educational Center in nearby Broward County. Additionally, numerous programs are offered at off-campus locations and online. *Kiplinger's Personal Finance Magazine* ranked FIU among the best values in public higher education in the country.

Research is a major component of our mission. The purpose of the Office of Research is to facilitate new discoveries and thereby improve the quality of life in our region, the state and the larger international community. We are particularly interested in environmental quality, energy, health, water quality, sustainable communities, economic development, security and safety. Multidisciplinary teams, information technology and international culture are among the major themes in our research.

FIU is one of the nation's major research universities and we expend approximately \$100 million annually on research. Our research is funded by more than 200 public and private organizations, and in terms of dollar value, our largest sponsor is the Federal Government with funding from 41 different Federal agencies. The University has many specialized research facilities including a new nano scale research and fabrication laboratory. We also conduct many studies "off site" throughout the United States and the world. Undergraduate and graduate students participate actively in all of our research endeavors. FIU exports its discoveries for public benefit through publications, formal technology transfer agreements, public testimony and evidence-based advocacy, and the development of the next generation of scholars.

UNIVERSITY PARK

The University Park Campus is a 344-acre site on the western edge of Miami, the center of a metropolitan area of almost four million people. Apartment-style residence halls, a nationally certified environmental preserve, and athletic facilities all contribute to a pleasant collegiate atmosphere on University Park, which is also Florida International University's largest campus. FIU's University Park (UP) has an impressive campus architecture, lush tropical landscaping, a Sculpture Park, and an eight-story, \$30 million library. The Sculpture Park, an extraordinary assortment of outdoor artwork, attracts school children, university students, tour groups and individuals from South Florida and beyond. There is also a state-of-the-art performing arts center, a new fitness center, an expanded

university center, a 4,500 seat PharMed Arena and a new football stadium opening in Fall 2008. University Park also has laboratories, auditoriums, music and art studios, an art museum, an international conference theater, an experimental theater and many student organizations including the prestigious Phi Beta Kappa Honor Society. There is a wide variety of clubs on campus to meet the professional, service, athletic, social, and cultural needs of the FIU community.

FIU's libraries at University Park and Biscayne Bay Campus have more than 1.7 million volumes, 19,000 journals (5,000 online), electronic databases, numerous resources in other formats along with substantial holdings of federal, state, local, and international documents, maps, institutional archives, and curriculum materials.

Recent additions to University Park include a 153,000-square foot building for our College of Law; the University House; the Paul L. Cejas School of Architecture building designed by Bernard Tschumi; a 221,000 square-foot Health and Life Sciences complex (HLS I & II); a Health & Wellness Center; a 50,000 square-foot Recreation Center; an 83,000 square-foot Management and Advancement

Research Center (MARC); and four parking garages with over 4,900 additional parking spaces. The Graham Center, currently approximately 270,000 square feet, includes an expanded Barnes & Noble bookstore with a café and new Campus Life offices in the second floor addition. A new food court and shops have been added. A \$11 million Frost Museum building, designed by internationally recognized architect Yann Weymouth of Hellmuth Obata + Kassabaum (HOK), will open on campus in Fall 2008. Three of the building's nine galleries will be dedicated to the permanent collection, while the remaining six will feature rotating exhibitions.

Housing and Residential Life provides a wide variety of living accommodations on campus. Residence halls at University Park include Panther Hall, Everglades Hall, University Park Towers, University Apartments, and Lakeview Housing. Housing staff assist students in selecting accommodations to meet their particular needs. Housing for married students is available on a limited basis. Graduate housing is also limited and applications should be submitted as early as possible.



UNIVERSITY PARK

BISCAYNE BAY CAMPUS

The Biscayne Bay Campus of Florida International University is located on 200 acres on the waterfront of Biscayne Bay and has an enrollment of 6,959 students. The campus is headquarters for academic programs in Hospitality and Tourism Management, Journalism and Mass Communication, Marine Science, and Creative Writing. Programs in Arts and Sciences, Business Administration, Architecture and the Arts, Computer Science, Nursing, and Criminal Justice are also offered (for specific degree programs please refer to Academic Programs in this catalog).

The Biscayne Bay Campus is also the hub of Continuing and Professional Studies (CAPS). The campus houses the Osher Lifelong Learning Institute, the International Media Center, the Institute for Public Opinion Research, and the Roz and Cal Kovens Conference Center a state-of-the-art conference facility located on Biscayne Bay.

Apartment-style residential housing on the Biscayne Bay Campus accommodates 276 students. The Wolfe University Center is the focal point of all student activities and student life. The campus inaugurated a new Recreational Facility in 2007 and also provides a Health and Wellness Center. Expansion of the Wolfe University Center dining facilities, to be completed Fall 2008, will provide students with additional dining choices. An active, award winning Science Club serves the interest of research oriented undergraduates.

The campus is administered by the Office of the Vice Provost for Biscayne Bay Campus. There are also representatives from the Divisions of Academic Affairs, Business and Finance, Student Affairs, Human Resources, and University Advancement on this campus.



BISCAYNE BAY CAMPUS

BROWARD PINES CENTER

Florida International University has brought higher education closer to home for thousands of South Broward residents through its Broward Pines Center at the Academic Village in Pembroke Pines. Classes are held in a state-of-the-art 90,000 square-foot facility that includes spacious classrooms, computer labs, case study rooms, a student lounge and a 450-seat auditorium. FIU Broward Pines Center shares the Academic Village with Broward Community College, the City of Pembroke Pines Charter High School and Southwest Regional Library.

Currently select programs at the bachelor's, master's and doctoral level are being offered by the College of Arts and Sciences, College of Business Administration, College of Education, and the College of Engineering and Computing. For specific degree programs, please refer to

the Broward Pines Center link on the University home page, as well as the relevant pages in this catalog. In addition to degree-seeking programs, the English Language Institute and Continuing and Professional Studies offer non-credit courses.

Students attending the Pines Center benefit from well-equipped computer labs and access to the resources of both the FIU libraries (University Park and Biscayne Bay Campus) and the Broward County Southwest Regional Library. The Broward Student Government Association sponsors social and cultural events that provide students with opportunities to enhance their experiences outside of the classroom.



BROWARD PINES CENTER

ACCREDITATIONS

All academic programs of Florida International University are approved by the Florida Board of Education, the FIU Board of Trustees and the Florida Board of Governors. The University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number 404-679-4501) to award the baccalaureate, master's, and doctoral degrees. SACS reaffirmed FIU's accreditation on December 5, 2000. Degree programs at FIU are accredited or approved by the appropriate specialized accreditation agency, or are pursuing full accreditation or approval. To obtain information about the specialized accreditation agencies, their criteria and review process, contact the Chairperson/Director of the respective degree program. The professional accrediting agencies and the respective FIU degree programs are listed in alphabetical order below.

Anesthesiology Nursing

- Council on Accreditation of Nurse Anesthesia Educational Programs (CoA-NA)
- American Association of Nurse Anesthetists (AANA)

Architecture

- National Architectural Accrediting Board (NAAB)

Art Education

- National Association of Schools of Art and Design
- Commission on Accreditation (NASAD)

Art History

- National Association of Schools of Art and Design
- Commission on Accreditation (NASAD)

Art Museum

- American Association of Museums

Business

- Association to Advance Collegiate Schools of Business (AACSB) International

Chemistry

- American Chemical Society (ACS)

Computer Science

- Accreditation Board for Engineering and Technology (ABET)

Construction Management

- American Council for Construction Education
- Board of Trustees (ACCE)

Counselor Education

- Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Dietetics and Nutrition

- American Dietetic Association
- Commission on Accreditation for Dietetics Education (CADE-ADA)

Education

- National Council for Accreditation of Teacher Education (NCATE)

Engineering

- Accreditation Board for Engineering and Technology, Inc. (ABET)

Forensic Science

- American Academy of Forensic Sciences

Health Information Management

- American Health Information Management Association (AHIMA)

Health Services Administration

- Commission on Accreditation of Healthcare Management Education (CAHME) (formerly ACEHSA)

Interior Design

- Council for Interior Design Accreditation (CIDA) (formerly FIDER)

Journalism and Mass Communication

- Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

Landscape Architecture

- American Society of Landscape Architects (ASLA)
- Landscape Architectural Accreditation Board (LAAB)

Law

- American Bar Association (ABA)

Music

- National Association of Schools of Music
- Commission on Accreditation (NASM)

Nursing

- National League for Nursing Accrediting Commission (NLNAC)

Occupational Therapy

- American Occupational Therapy Association (AOTA)
- Accreditation Council for Occupational Therapy Education (ACOTE)

Parks and Recreation

- National Recreation and Park Association/American Association for Leisure and Recreation Council of Accreditation (NRPA/AALR)

Physical Therapy

- American Physical Therapy Association (APTA)
- Commission on Accreditation in Physical Therapy Education (CAPTE)

Public Administration

- National Association of Schools of Public Affairs and Administration (NASPAA)
- Commission on Peer Review and Accreditation (COPRA)

Public Health

- Council on Education for Public Health (CEPH)

Social Work

- Council on Social Work Education Office of Social Work Accreditation and Educational Excellence (CSWE)

Speech Language Pathology

- American Speech-Language-Hearing Association
- Council on Academic Accreditation in Audiology & Speech-Language Pathology (ASHA)

Theatre

- National Association of Schools of Theatre
- Commission on Accreditation (NAST)

UGS



UNIVERSITY GRADUATE SCHOOL

George E. Walker
Jonathan Tubman
Stephan L. Mintz
Victoria Castellanos
Louis Farnsworth

Vice President and Dean
Associate Dean
Associate Dean
Associate Dean
Director

The University Graduate School has oversight of post baccalaureate programs in all colleges and schools with the exception of the programs in the College of Law and the College of Medicine. Working with the Graduate Faculty and the Graduate Council of the Faculty Senate, the University Graduate School develops and implements the policies and procedures that guide graduate education at the University.

Graduate Admissions is usually the first point of contact entering graduate students have with the University Graduate School. Students are admitted to the University Graduate School upon recommendation of the graduate program to which they have applied. The University Graduate School oversees the university- wide fellowship programs: Presidential Fellowships, Presidential Enhanced Assistantships, and Dissertation Year Fellowships. The University Graduate School also works with the graduate programs to provide support to Graduate Assistants. The stipend for Graduate Assistants is provided by the graduate program, within guidelines set by the University Graduate School, and the accompanying tuition waivers are provided by the University Graduate School.

Graduate students completing non-thesis master's degrees typically have little contact with the University Graduate School between admission and the certification of completion of degree requirements unless they need to request an exception to one of the rules or regulations governing graduate education. However, students completing thesis master's degrees and all students in doctoral programs have more contact with the University Graduate School as they obtain University Graduate School approval for their thesis or dissertation committee, thesis or dissertation proposal, thesis or dissertation defense announcement, and final thesis or dissertation.

The University Graduate School works with the Graduate Students Association to help enrich the total graduate student experience: academically, socially, and culturally. The University Graduate School serves as an ombudsman for graduate students.

All graduate students are encouraged to visit the University Graduate School (PC 230), or call 305-348-2455, or log on to the web site, <http://gradschool.fiu.edu> to learn the answers to questions regarding any phase of their graduate education.

Academic Programs

UNIVERSITY PARK PROGRAMS

COLLEGE OF ARCHITECTURE AND THE ARTS

<http://carta.fiu.edu/>

MASTER OF ARCHITECTURE

MASTER OF ARTS IN:

- Architecture
- Interior Design
- Landscape Architecture

MASTER OF FINE ARTS IN VISUAL ARTS

MASTER OF INTERIOR DESIGN

MASTER OF LANDSCAPE ARCHITECTURE

MASTER OF MUSIC

MASTER OF SCIENCE IN MUSIC EDUCATION

COLLEGE OF ARTS AND SCIENCES

<http://www.fiu.edu/orgs/casdean/>

MASTER OF ARTS IN:

- African-New World Studies
- Asian Studies
- Comparative Sociology
- Economics
- English
- History
- International Studies
- Latin American and Caribbean Studies
- Liberal Studies
- Linguistics
- Political Science
- Religious Studies
- Spanish

MASTER OF FINE ARTS IN CREATIVE WRITING

MASTER OF SCIENCE IN:

- Biology
- Chemistry
- Environmental Studies
- Forensic Science
- Geosciences
- Mathematical Sciences
- Physics
- Psychology
- Statistics

DOCTOR OF PHILOSOPHY IN:

- Biology
- Chemistry
- Comparative Sociology
- Economics
- Geosciences
- History
- International Relations
- Physics
- Political Science
- Psychology
- Spanish

COLLEGE OF BUSINESS ADMINISTRATION

<http://business.fiu.edu/>

EXECUTIVE MASTER OF BUSINESS

ADMINISTRATION

INTERNATIONAL MASTER OF BUSINESS

ADMINISTRATION

MASTER OF ACCOUNTING

MASTER OF BUSINESS ADMINISTRATION

MASTER OF INTERNATIONAL BUSINESS

MASTER OF SCIENCE IN:

- Finance
- Human Resource Management
- International Real Estate
- Management Information Systems

COLLEGE OF EDUCATION

<http://education.fiu.edu/>

MASTER OF ARTS IN TEACHING:

Art Education (K-12)

English Education (6-12)/ESOL*

French Education (6-12)

Mathematics Education (6-12)*

Science Education (6-12)*

Social Studies Education (6-12)*

Spanish Education (6-12)

MASTER OF SCIENCE IN:

- Adult Education
- Art Education
- Counselor Education
- Curriculum and Instruction
- Early Childhood Education
- Educational Leadership
- Exercise and Sports Sciences*
- Foreign Language Education: TESOL
- Higher Education Administration
- Human Resource Development
- International/Intercultural Education
- Parks and Recreation Management
- Physical Education
- Reading Education (K-12)
- Special Education
- Urban Education

EDUCATION SPECIALIST IN:

- Curriculum and Instruction
- Educational Leadership
- School Psychology

DOCTOR OF EDUCATION IN:

- Adult Education and Human Resource Development
- Curriculum and Instruction
- Educational Administration and Supervision
- Exceptional Student Education
- Higher Education

DOCTOR OF PHILOSOPHY IN CURRICULUM AND INSTRUCTION

COLLEGE OF ENGINEERING AND COMPUTING

<http://www.eng.fiu.edu/>

MASTER OF SCIENCE IN:

- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Management
- Electrical Engineering
- Engineering Management
- Environmental Engineering
- Environmental and Urban Systems***
- Industrial and Systems Engineering***
- Materials Science and Engineering
- Mechanical Engineering
- Technology Management***
- Telecommunications and Networking

DOCTOR OF PHILOSOPHY IN:

- Biomedical Engineering
- Civil Engineering
- Computer Science
- Electrical Engineering
- Industrial and Systems Engineering***
- Materials Science and Engineering
- Mechanical Engineering

COLLEGE OF NURSING AND HEALTH SCIENCES

<http://nursing.fiu.edu/>

MASTER OF SCIENCE IN:

- Athletic Training
- Nursing
- Occupational Therapy
- Speech Language Pathology

DOCTOR OF PHILOSOPHY IN NURSING

DOCTOR OF PHYSICAL THERAPY

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

<http://swipa.fiu.edu/>

MASTER OF PUBLIC ADMINISTRATION

MASTER OF SOCIAL WORK

MASTER OF SCIENCE IN CRIMINAL JUSTICE

DOCTOR OF PHILOSOPHY IN:

- Public Management
- Social Welfare

ROBERT STEMPEL SCHOOL OF PUBLIC HEALTH

<http://ssph.fiu.edu/>

MASTER OF HEALTH SERVICES ADMINISTRATION

MASTER OF PUBLIC HEALTH

MASTER OF SCIENCE IN DIETETICS AND NUTRITION

DOCTOR OF PHILOSOPHY IN:

- Dietetics and Nutrition
- Public Health

Please Note: As of Summer 2008, programs designated with a (*) will no longer be admitting/enrolling new students to the program.

BISCAYNE BAY PROGRAMS

<http://www.fiu.edu/~bbc/>

COLLEGE OF ARTS AND SCIENCES

<http://www.fiu.edu/~casdean/bbcas/>

MASTER OF FINE ARTS IN CREATIVE WRITING

MASTER OF ARTS IN:

- African-New World Studies
- English

MASTER OF SCIENCE IN PSYCHOLOGY

ACADEMIC CERTIFICATE IN:

- African-New World Studies

COLLEGE OF BUSINESS ADMINISTRATION

<http://business.fiu.edu/>

MASTER OF SCIENCE IN TAXATION

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

<http://hospitality.fiu.edu/>

MASTER OF SCIENCE IN:

- Hospitality Management
- Tourism Studies*

ACADEMIC CERTIFICATES IN:

- Hospitality Management
- Tourism Studies

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

<http://jmc.fiu.edu/sjmc/>

MASTER OF SCIENCE IN MASS COMMUNICATION

ACADEMIC CERTIFICATES IN:

- Integrated Communications: Advertising and Public Relations
- Integrated Marketing Communication: Latin American Certification
- Spanish Language Journalism
- Student Media Advising

Please Note: As of Summer 2008, programs designated with a (*) will no longer be admitting/enrolling new students to the program.

FIU BROWARD-PINES CENTER PROGRAMS

<http://www.fiu.edu/orgs/broward/>

COLLEGE OF ARTS AND SCIENCES

<http://www.fiu.edu/orgs/casdean/>

MASTER OF SCIENCE IN PSYCHOLOGY

COLLEGE OF BUSINESS ADMINISTRATION

<http://business.fiu.edu/>

MASTER OF ACCOUNTING

MASTER OF SCIENCE IN FINANCE

PROFESSIONAL MASTER OF BUSINESS ADMINISTRATION

COLLEGE OF EDUCATION

<http://education.fiu.edu/>

MASTER OF SCIENCE IN:

Adult Education
Counselor Education
Educational Leadership
Higher Education Administration
Human Resource Development
Reading Education

DOCTOR OF EDUCATION IN:

Adult Education and Human Resource Development
Curriculum and Instruction
Higher Education

COLLEGE OF ENGINEERING AND COMPUTING

<http://cec.fiu.edu>

MASTER OF SCIENCE IN CONSTRUCTION MANAGEMENT

DOWNTOWN PROGRAMS

COLLEGE OF BUSINESS ADMINISTRATION

<http://business.fiu.edu/>

DOWNTOWN MASTER OF BUSINESS ADMINISTRATION

MASTER OF BUSINESS ADMINISTRATION FOR PUBLIC MANAGERS

MASTER OF SCIENCE IN:

Finance
International Real Estate

EVENING AND WEEKEND DEGREE PROGRAMS

COLLEGE OF ARTS AND SCIENCES

<http://www.fiu.edu/orgs/casdean/>

MASTER OF ARTS IN:

African-New World Studies
Economics
Liberal Studies
Political Science
Religious Studies
Spanish

MASTER OF SCIENCE IN:

Chemistry
Geosciences
Environmental Studies
Forensic Science
Mathematical Sciences

DOCTOR OF PHILOSOPHY IN:

History
Spanish

COLLEGE OF BUSINESS ADMINISTRATION

<http://business.fiu.edu/>

MASTER OF ACCOUNTING

MASTER OF BUSINESS ADMINISTRATION

MASTER OF INTERNATIONAL BUSINESS

MASTER OF SCIENCE IN:

Finance
Human Resource Management
International Real Estate
Management Information Systems
Taxation

COLLEGE OF ENGINEERING AND COMPUTING

<http://www.cec.fiu.edu/>

MASTER OF SCIENCE IN:

Civil Engineering
Computer Engineering
Construction Management
Electrical Engineering
Engineering Management
Industrial and Systems Engineering*
Mechanical Engineering

COLLEGE OF NURSING AND HEALTH SCIENCES

<http://nursing.fiu.edu/>

MASTER OF SCIENCE IN:

Nursing
Occupational Therapy

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC

<http://swjpa.fiu.edu/>

MASTER OF PUBLIC ADMINISTRATION

MASTER OF SOCIAL WORK

MASTER OF SCIENCE IN CRIMINAL JUSTICE

ROBERT STEMPEL SCHOOL OF PUBLIC HEALTH

<http://ssph.fiu.edu/>

MASTER OF HEALTH SERVICES ADMINISTRATION

MASTER OF PUBLIC HEALTH

MASTER OF SCIENCE IN DIETETICS AND NUTRITION

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

<http://jmc.fiu.edu/sjmc/>

MASTER OF SCIENCE IN MASS COMMUNICATION

GRADUATE CERTIFICATE PROGRAMS

Certificates are offered to students with bachelor's degrees who wish to obtain advanced education in a particular area of concentration, but do not necessarily want to commit to a master's degree. Successful completion of a Graduate Certificate is entered on the student's transcript. Some or all of the courses taken in a Graduate Certificate can often be applied to a master's degree. In addition to the Graduate Certificates offered through the University Graduate School, non-credit Professional Certificates are offered through the College of Continuing and Professional Studies.

COLLEGE OF ARCHITECTURE AND THE ARTS

<http://carta.fiu.edu/>

GRADUATE CERTIFICATE IN:

- Furniture Design
- History and Theory of Architecture
- Landscape Architecture
- Museum Studies

COLLEGE OF ARTS AND SCIENCES

<http://www.fiu.edu/orgs/casdean/>

GRADUATE CERTIFICATE IN:

- African-New World Studies
- Asian Globalization
- Asian Studies
- Environmental Studies
- Geographic Information Systems
- Integrated Marketing Communications: Latin American Certification
- Latin American and Caribbean Studies
- National Security Studies
- Religious Studies
- Sustainable Communities
- Transnational and Regional Studies
- Water, Environment and Development Studies
- Women's Studies

COLLEGE OF BUSINESS ADMINISTRATION

<http://cba.fiu.edu/>

GRADUATE CERTIFICATE IN:

- Accounting
- Banking
- Entrepreneurship
- Financial Risk Management
- International Bank Management
- International Business
- International Real Estate
- Investments
- Management Information Systems
- Taxation

COLLEGE OF EDUCATION

<http://education.fiu.edu/>

GRADUATE CERTIFICATE IN:

- Conflict Resolution and Consensus Building
- Educational Leadership
- TESOL (Teaching English to Speakers of Other Languages)

COLLEGE OF ENGINEERING AND COMPUTING

<http://www.eng.fiu.edu/>

GRADUATE CERTIFICATE IN:

- Construction Engineering and Management
- Electric Power Engineering and Management
- Information Technology in Civil Engineering
- Mechanical Engineering

COLLEGE OF NURSING AND HEALTH SCIENCES

<http://nursing.fiu.edu/>

PROFESSIONAL CERTIFICATE IN:

- Family-Focused Health Care Across Cultures

GRADUATE CERTIFICATE IN:

- Gerontology
- Nurse Executive
- Occupation-Based Injuries
- Post-Master's Nurse Practitioner

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

<http://swjpa.fiu.edu/>

GRADUATE CERTIFICATE IN:

- Addictions
- Human Resource Policy and Management
- Justice Administration and Policy Making
- Management in Social Work
- Public Management
- Post-MSW Certificate in Clinical Practice
- Social Work Practice with the Elderly

ROBERT STEMPEL SCHOOL OF PUBLIC HEALTH

<http://ssph.fiu.edu/>

GRADUATE CERTIFICATE IN:

- Community Nutrition
- Environmental Health
- Epidemiology
- Health Promotion
- Health Services Administration
- Public Health Foundations

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

<http://hospitality.fiu.edu/>

GRADUATE CERTIFICATE IN:

- Hospitality Management
- Tourism Studies

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

<http://jmc.fiu.edu/sjmc/>

GRADUATE CERTIFICATE IN:

Integrated Communications: Advertising and Public
Relations

Integrated Marketing Communications: Latin American
Certification

Spanish Language Journalism

Student Media Advising

GRADUATE ADMISSIONS

Florida International University encourages and accepts applications from qualified applicants without regard to sex, physical handicap, national origin, cultural, racial, religious or ethnic background or association.

MINIMUM REQUIREMENTS FOR ADMISSION INTO GRADUATE PROGRAMS

Applicants to a graduate program of the University must meet the minimum standards set forth by the University and the program. Applicants must check the individual program requirements before submitting their applications.

A student seeking admission into a graduate program offered by the University must have a bachelor's degree or equivalent from a regionally accredited institution or, in the case of foreign students, from a well established institution of higher learning that is authorized to grant degrees by appropriate authorities in that country. The applicant must submit official copies of all transcripts, test scores and other supporting documents to Florida International University, Graduate Admissions Office, P.O. Box 659004, Miami, FL. 33265-9004. All credentials and documents submitted to the Graduate Admissions Office become the property of Florida International University. Originals will not be returned to the applicant or forwarded to another institution.

In the absence of specific program admission requirements, the applicant should have a minimum of a "B" average in upper level work, or a graduate degree from an accredited institution.

Degree programs individually determine admission requirements with respect to requiring nationally-normed examinations and the required scores. Programs that have not set their own requirements default to the University standard which is that Ph.D. programs require that scores must be at or above the 60th percentile (e.g., 1120 combined Verbal and Quantitative on the GRE or 570 composite on the GMAT) and that master's degree programs and professional doctoral degree programs require that scores must be at or above the 40th percentile (e.g. 1000 combined Verbal and Quantitative on the GRE or 500 composite on the GMAT).

Admissions at the graduate level are competitive and meeting minimum program requirements does not guarantee admission.

An applicant who fails to meet these criteria may seek admission via an exception to the admissions standards.

APPLICATION PROCESS

Students interested in applying for admission into a graduate degree program or a graduate certificate must submit their applications online by visiting FIU's website at <http://gradschool.fiu.edu> for applications and instructions. A \$30.00 non-refundable fee (U.S. Dollars) will be charged for each online application.

READMISSION

An admitted degree-seeking student, who has not enrolled in any course at the University for two (2) or more consecutive terms, excluding summer terms and military withdrawals, will be required to apply for re-admission. The student must meet the University and program regulations in effect at the time of application for readmission. Applications for readmission are processed the same as

an application for admission with the exception of needing to provide documentation already provided. If the applicant has completed courses in another institution of higher education since the last attendance at FIU, transcripts from that institution need to be submitted in addition to the application.

Application Deadline for Domestic Students

SEMESTER ADMISSIONS IS SOUGHT	APPLICATION DEADLINE
Fall	June 1 st
Spring	October 1 st
Summer	March 1 st

If the application and supporting documents are not received by the appropriate deadline, the application will be considered for admission for the following term.

Note: Individual programs may have deadlines earlier than the University deadlines. Applicants should check with the program to which they are seeking admission to determine the application deadline.

TRANSFER OF GRADUATE CREDIT FROM OTHER INSTITUTIONS

Doctoral programs may accept a maximum of 6 semester hours of graduate credit earned from another institution beyond a bachelor's degree. An exception is made for courses contained within an earned master's or doctoral degree. For such courses, the maximum is one fewer than half of the total credits required for the program.

Masters programs may accept a maximum of six semester hours of graduate credit earned from another institution beyond a bachelor's degree.

Acceptance of transfer credits for a course is dependent upon the following provisions:

- the student received a grade of 3.0 or better on a 4.0 scale
- the course was taken at a regionally or nationally accredited institution
- the course was relevant, as judged by the admissions committee of the department or program, to the graduate program in which the student is accepted
- the course is listed on an official transcript received by the Graduate Admissions Office
- the course will not be older than six years at the time of receipt of a master's degree or nine years at the time of receipt of a doctoral degree (does not apply to credits earned as part of a completed graduate degree program)

Note: Students are advised to verify this information with the appropriate Graduate Program Director.

ACADEMIC RECORDS

Official transcripts must be sent directly from each previous institution to the Graduate Admissions Office. Documents in a language other than English must be translated by an official translation agency. Notarized translations are not acceptable.

ADMISSION OF INTERNATIONAL STUDENTS

Foreign graduate applicants are accepted subject to space and fiscal limitations. In addition to the general University admissions requirements, foreign applicants must be academically eligible for further study in their own country

and must demonstrate proficiency in the English language by presenting a minimum score of 80 on the iBT TOEFL (equivalent to 550 on the paper-based version, or 213 on the computer-based version of the Test of English as a Foreign Language) or 6.3 overall on the International English Language Testing System (IELTS). However, some departments may require higher scores. Applicants who hold an undergraduate or graduate degree from an institution within the United States or other English speaking countries are not required to submit TOEFL scores. The applicant must check the individual departmental requirements. For TOEFL information, visit the following URL: <http://www.toefl.org/>.

International student applicants must meet all the admission requirements of the University as described in the previous sections and also comply with the following:

Application Deadlines for International Students

Due to the additional processing time needed, International Students should submit their applications and supporting documents much earlier than students who are U.S. Citizens or Residents. It is recommended that all international students comply with the following application deadlines:

SEMESTER ADMISSIONS IS SOUGHT	APPLICATION DEADLINE
Fall	April 1 st
Spring	September 1 st
Summer	February 1 st

Note: Individual programs may have deadlines earlier than the University deadlines. Applicants should check with the program to which they are seeking admission to determine the application deadline.

Tuition for International Students

An international student is considered a non-resident and is assessed non-resident fees.

ANNUAL ESTIMATE¹ OF COSTS FOR NEW² INTERNATIONAL GRADUATE STUDENTS

Single Student (18 semester hours)	
Tuition and Fees³	\$14,768
Maintenance⁴	\$10,962
Books and Supplies	\$846
Medical Insurance⁵	\$1,700
Total	\$28,276

¹ Based on 2008-2009 costs.

² Admitted for Fall 2006 thereafter.

³ Tuition and fees are subject to change. Fees include: Per credit fees: \$66.59 per credit. Per Semester fees: Student Health Fee (\$67.20 per semester), the Athletics Fee (\$10.00 per semester) and Transportation Access Fee (\$82.39). Amounts shown reflect 9 graduate credit hours during Fall and Spring terms only.

⁴ Maintenance is estimated at \$1,218.00 per month to cover room, board, transportation, and personal expenses. This cost is for twelve months.

⁵ All international students are required to carry medical insurance. This cost is for twelve months.

Declaration and Certification of Finances

Upon receipt of the application for admission, the Declaration and Certification of Finances will be mailed to the applicant. It must be completed and returned to the Graduate Admissions Office. A Certificate of Eligibility

(Form I-20A) will be issued once the applicant has been found admissible to the University.

The University is required by immigration authorities to check carefully the financial resources of each applicant prior to issuing the Form I-20A. Therefore, it is important that applicants are aware of the cost of attending the University and have the necessary support funds for the period of enrollment. Applicants should refer to the Annual Estimate of Cost Chart.

The total funds available for the student for the first or second academic year, or both, must equal the total estimate of institutional costs and living expenses. All items in the Declaration and Certification of Finances must be accurately answered to avoid unnecessary delay in processing. This document must be received by the Graduate Admissions Office two months prior to the anticipated entry date.

A married student should plan on an additional \$6,000 in costs to cover the living expenses of a spouse.

A couple with children should anticipate further yearly additional costs of no less than \$4,000 for each child.

MEDICAL INSURANCE

The State of Florida requires that all international students maintain health insurance coverage to help defray the costs in case of catastrophic medical emergency. The policy must provide specific levels of coverage which have been established to ensure that the policy is adequate to provide for costs at U.S. hospitals, usually much higher than costs in many other parts of the world. In addition, a policy must have a claims agent in the United States who may be contacted by medical providers and who facilitates prompt payment of claims. The University has approved a plan which meets the state requirements and which meets the needs of most students; however, a student may select alternate coverage provided it meets the state requirements for minimal coverage. A copy of these requirements is available from the Office of International Student and Scholar Services. Students are advised not to purchase insurance policies prior to arrival without verifying that the policies meet FIU/SUS requirements. Compliance with the insurance regulation is required prior to registration.

FULL-TIME ENROLLMENT

Non-immigrant alien students in F-1 visa status are required by United States immigration regulations to be enrolled full-time, except for the Summer Terms, and to make satisfactory progress toward the degree program in each term; otherwise the student's immigration status will be jeopardized. Full-time graduate enrollment is defined as a minimum of nine semester hours during Fall and Spring terms and six credits during Summer terms. Doctoral students who have reached candidacy or master's students who have completed all requirements except for the thesis, and have an approved thesis proposal on file in the University Graduate School, are considered full-time when registered for three credits per term.

It is the student's responsibility to comply with all non immigrant alien requirements as stated under the United States laws Section 101(a)(15)(f)(i) of the Immigration and Nationality Act and the provisions of the USA PATRIOT Act.

EMPLOYMENT

The legal regulations governing F-1 student employment are complex, and advisors are available in the Office of International Student and Scholar Services to explain these regulations. In general, however, employment is available only to students who maintain their legal status in the U.S. and is regulated under three categories:

1) on-campus employment: F-1 students may be employed on the FIU campuses for a maximum of 20 hours per week during fall and spring semesters while school is in session, and full time during holidays, vacations, and summer. On-campus employment includes teaching and research assistantships for graduate students and hourly part time work. Students must contact individual campus departments to inquire about employment opportunities.

2) off-campus employment: F-1 students may request off-campus employment under very limited conditions and only after maintaining F-1 status for at least one full academic year. Off-campus employment opportunities are not readily available, and students should not rely on off campus employment as a source of income to finance their studies.

3) Practical training: F-1 students may request optional practical training employment to accept jobs related to their studies. Students usually pursue practical training employment after completion of degree requirements, although in some cases practical training may be authorized prior to completion of studies. Since practical training employment is limited to one year of full-time employment for each degree level, students cannot rely on it as a source of income to finance their studies.

Note: An international student will not be granted admission to the University until all academic and non academic requirements have been met. Under no

circumstances should a student come to the University without having received the official Letter of Admission and the SEVIS Form I-20.

All correspondence and document submissions should be directed to: Graduate Admissions Office, Florida International University, P.O. Box 659004, Miami, Florida 33265-9004.

CREDIT FOR NON-COLLEGE LEARNING

Graduate credit will not be awarded for life experiences.

In cases where a student's learning experience would appear to have been sufficient to develop the understanding and skills associated with a course that would otherwise be included in his or her graduate program of study, he or she will be allowed to register for Independent Study credits and demonstrate competency through development of an appropriate project acceptable to the faculty member who represents that specific area of specialization.

Not more than 10 semester hours of a 30 semester hour master's degree, nor 15 semester hours of a 60 semester hour master's degree, may be so earned.

TRAVELING SCHOLAR PROGRAM

The University participates in a traveling scholar program which enables a graduate student to take advantage of special resources, special course offerings, research opportunities, unique laboratories and library collections available on another campus but not available on his or her own campus. Further information may be obtained from the Graduate Program Director of the program in which the student is enrolled.



TUITION AND FEES

FEES

Registration and tuition fees are established by the Board of Trustees as required by the Florida Legislature. These fees are subject to change without notice. As of Fall 2008, the authorized fees are:

PER CREDIT HOUR TUITION AND FEES FOR CONTINUING GRADUATE STUDENTS

	Florida Resident	Non-Florida Resident
Graduate	\$286.44 ^a	\$790.51 ^b
Per Semester Fees		
Intercollegiate Athletics	\$10.00	\$10.00
Student Health Services	\$67.20	\$67.20
Transportation Access ^c	\$82.39	\$82.39

^a This amount includes \$42.01 per credit fees.

^b This amount includes \$66.01 per credit fees.

^c Transportation Access is \$75.97 in the Summer term.

Fall/Spring = \$82.39, including the sales tax.

PER CREDIT HOUR TUITION AND FEES FOR NEW^a GRADUATE STUDENTS

	Florida Resident	Non-Florida Resident
Graduate	\$298.64 ^b	\$802.71 ^c
Per Semester Fees		
Intercollegiate Athletics	\$10.00	\$10.00
Student Health Services	\$67.20	\$67.20
Transportation Access ^d	\$82.39	\$82.39

^a Admitted for Fall 2006 or thereafter.

^b This amount includes \$42.59 per credit fees.

^c This amount includes \$66.59 per credit fees.

^d Transportation Access is \$75.97 in the Summer term.

Fall/Spring = \$82.39, including the sales tax.

FEE WAIVERS

Students using a fee waiver for part of the fee payment must pay their portion on or before the last day to pay fees. Students who are responsible for a portion of their fees in addition to the fee waiver will be required to pay their portion before the fee waiver is applied.

State employees using the State employee fee waiver to pay their fees may only register for classes during the designated registration period as indicated in the University Calendar. The State Employee Fee Waiver pays up to six hours of tuition and fees per term. Summer sessions A, B, and C are considered one term for the purposes of the State Employee Fee Waiver. If the employee registers for more than six hours, he or she will be required to pay for the additional credit hours plus all per student related fees. A properly completed and approved waiver form must be presented at the Student Financials Office upon registration. Fee Waivers will be processed only for those courses shown on the approved fee waiver request form presented at the time of registration. A permit will not be accepted with the tuition waiver program. Only one fee waiver form per employee

will be accepted each semester. The State employee fee waiver will not be accepted as payment for course registrations prior to the announced date for state employee registration. State Employee Fee Waivers do not cover Thesis, Dissertation, Internships, Directed Individual Study, Non Credit Courses, Sponsored Credit Programs, Field Experience, Practicum, closed courses, or courses taken for audit grades.

Senior citizens fee waivers are available to persons 60 years of age or older who meet the requirements of Florida residency as defined in this catalog. The fee waiver allows qualified individuals to attend credit classes on an audit basis. Senior citizens using the fee waiver must register during the first week of classes. Senior citizens using the fee waiver must pay the photo id fee during their first term in attendance.

Florida law requires that State employee fee waivers and senior citizen fee waivers be granted on a space available basis only; therefore, individuals using these waivers must comply with the procedures outlined above.

Note: Refunds will not be processed for employees who have registered and paid prior to the state employee registration day and wish to use the fee waiver.

FEE PAYMENT

Fees may be paid at the Student Financials Office at University Park, PC 120, or at Biscayne Bay Campus ACI 140 or online through the online PantherSoft self-service system. Broward students may pay by mail or at the Student Financials Office at University Park or Biscayne Bay Campus. Night drop boxes outside the Student Financials Offices are available 24 hours a day for fee payments by check or money order through the last day to pay fees. The University is not responsible for cash left in the night drop or sent through the mail. Failure to pay fees by the established deadlines will cause you to be dropped from all courses. See Fee Liability below.

Late Registration Fee

Students who register after the established deadline for registration will be subject to \$100 late registration fee.

Late Payment Fee

Students who pay fees after the established deadline for payments will be subject to a \$100 late payment fee. If applicable, this fee may be assessed in addition to the late registration fee described in the preceding section.

Financial Aid Students

All financial aid recipients must come to the Student Financials Office and pay the difference between their financial aid or fellowship awards less Federal Work Study and their final fee assessment. The student's schedule will then be automatically validated. Acceptance of a financial aid package constitutes acceptance of the above validation process.

Fee Liability

Students are liable for all fees associated with all courses in which they are registered at the end of the drop/add period. The fee payment deadline is published in the official University calendar. *If fees are not paid in full by the published dates, all courses will be cancelled.*

Note: Registration is not complete until all fees are paid in full.

Reinstatement of Classes

Appeals for reinstatement of registration for classes dropped for fiscal reasons must be filed in writing on the prescribed form with the Student Financials Office by the time specified on the cancellation notice. Reinstatement will be considered for all classes on the class schedule at the end of the drop/add period. Reinstatement cannot be requested selectively for certain classes. All reinstatement activity, including fee payment, must be completed by the date on the cancellation notice. All students whose registrations have been reinstated will be assessed a late payment fee. If the late registration fee is applicable it will also be assessed.

Application Fee

A non-refundable fee of \$30 will be charged for each online application for admission to the University.

PARKING RULES AND REGULATIONS

All persons who park vehicles on the university's campuses shall register their vehicle(s) with the Department of Parking and Transportation, obtain a decal or permit, and display the decal or permit, as prescribed by the Parking Rules and Regulations. The University assumes no liability for vehicles parked or operated on University property. The issuance of a decal or permit does not guarantee a place to park.

Transportation Access Fee

All enrolled students will pay a Transportation Access Fee each semester. The fee will appear on the Student Fee Schedule.

Students may request their parking decal online at <http://parking.fiu.edu> or at the Department of Parking and Transportation offices located in the Gold and Blue Parking Garages at University Park or in the Wolfe University Center, Room 353 at the Biscayne Bay Campus. They will need to bring the current vehicle registration when obtaining their decal at the office. All decals must be permanently affixed to the outside of the vehicle, either on the left side of the rear bumper or lower left corner, on the outside of the rear window. All decals are valid until the expiration date indicated on the decal. A duplicate hang-tag will be issued upon request for an additional charge of \$15.00 + tax. This hang-tag is valid only for the vehicle under which it is registered. Hang-tags are available to persons who have obtained an original decal for the current academic year. The hang-tags are for additionally owned vehicles and for situations where the original decal must be replaced due to an accident, maintenance, etc.

Housing

All students in university housing complexes need to obtain a current semester housing sticker from the Department of Parking and Transportation. This sticker allows the vehicle to be parked legally in student housing areas. This sticker is valid for the current semester only. This housing sticker should be affixed to the left or right side of their current student decal.

Disabled

Any person who has been certified in accordance with Sections 320.084, 320.0848, or 320.0842, Florida Statutes, and has been issued a Disabled placard by the Department of Motor Vehicle Bureau shall obtain and

display a university parking decal in the classification which would otherwise be appropriate.

Towing and Impoundment

The university may tow and impound any vehicle, which is found to be parked illegally or in violation of these rules.

Rules and Regulations Pamphlets

A copy of the University Parking Rules and Regulations is available online at <http://parking.fiu.edu> and at the Department of Parking and Transportation offices located in the Gold and Blue Parking Garages at University Park or in the Wolfe University Center, Room 353 at the Biscayne Bay Campus. It is the responsibility of each student to become familiar and comply with the University's parking and traffic rules and regulations.

LIBRARY FINES

Per book per library hour	\$.25
Maximum fine per book	\$5.00
Lost book fine	\$51.15

Note: All fees are subject to change as permitted by law. Additional fees may be added and special purpose fees may be assessed in some instances.

CHECKS

The University will accept personal checks for amounts due to the University. These checks must be in the exact amount due only. The Student Financials Office will not accept checks above the amount due, third party checks or checks for cash. State law requires that a service fee be assessed on a check returned unpaid by the bank for any reason. Service fees are based on the amount of the unpaid check. Checks for \$0.01 - \$50.00 are charged a \$25.00 fee; \$50.01 - \$300.00, a \$30.00 fee; \$300.01 - \$800.00, a \$40.00 fee; and a fee of 5% of the amount of the check for all checks greater than \$800.00. Checks returned by the bank can be redeemed only by cash, cashier's checks, or money orders. A personal check will not be accepted to replace a dishonored check.

Returned checks will be assigned to an agency for collection if not promptly paid. When an account has been assigned, the collection agency fee will be added to the University charges for collection at the current contract rate. Returned checks on student accounts will result in cancellation of classes and will require petition for reinstatement. See reinstatement of classes above.

The Student Financials Office will not accept a check on any student's account which has had two previous dishonored checks.

REFUNDS

Refunds will be processed and mailed to the address shown on the Registrar's files to all students whose fee accounts show an overpayment after the last day to pay fees. Students now have the option to add a direct deposit account. Information is available on line through Learner Services in the Finances icon (add a direct deposit link). Students due a refund will not be required to submit a refund application to receive their refund, it will automatically be calculated. If there is an amount due to the university in the accounts receivable system, that amount will be deducted from any refund due.

Students who have completed registration and have paid all fees due and have completely withdrawn from the

University prior to the end of the fourth week of classes are eligible for a refund of 25% of total fees paid.

In the following exceptional circumstances, a full refund of total fees paid will be made upon presentation of the proper documentation:

- Death of a student or immediate family member (parent, spouse, child or sibling). Death certificate required.
- Involuntary call to military service. Copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

Processing of refunds will begin after the end of the last day to pay fees.

Appeals for tuition refunds must be submitted in writing to the Office of the Registrar within one year after the end of the term for which the refund is requested. There are no exceptions to this policy.

PAST DUE ACCOUNTS

Delinquent accounts are sufficient cause to prohibit registration, graduation, release of transcripts, or release of diplomas.

The University is not able to grant credit or time payments for any fees. Financial aid is available to those qualifying through the Financial Aid Office. A limited number of short term loans are available to full time enrolled students who may experience problems in meeting fee payment due dates.

The University reserves the right to assign any past due account to an agency for collection. When an account has been assigned, the collection agency fee will be added to the University charges for collection at the current contract rate.

Deadlines

Students are reminded that deadlines are strictly enforced. The University is not able to grant credit or to extend the fee payment period beyond the time set in its official calendar. The University does not have the authority to waive late fees unless it has been determined that the University is primarily responsible for the delinquency or that extraordinary circumstances warrant such waiver. The University has no authority to extend deadlines for individual students beyond those set by the official calendar.



FINANCIAL AID

WHAT IS FINANCIAL AID?

Financial aid is a source of financial support provided by various agencies (federal, state and local governments, universities, community organizations, and private corporations or individuals) to help students meet the cost of attending college. It includes gift-aid (grants and fellowships) and self-help aid (loans and student employment).

- Grants are awards based on financial need which do not have to be repaid.
- Scholarships are non-repayable awards based either on merit, special talent and/or financial need.
- Student loans are available to students and/or their parents at low interest rates (6.8% - FFEL).
- Student employment allows students to earn money toward their education by working part-time while attending school

APPLYING FOR ASSISTANCE

The Free Application for Federal Student Aid (FAFSA) is the form used annually to apply for most types of financial assistance. FIU's school code 009635 is required when completing the FAFSA. Applications for financial assistance are available in January for the following academic year which begins in August. FIU's annual priority deadline is March 1st. Applications completed after this deadline will be processed in order of completion.

The FAFSA is available on the Web:

- FAFSA web filers will require a Federal PIN (Personal Identification Number) to be used in lieu of student & parent signatures. Therefore, both student and parent will need to apply for a PIN. To obtain a Federal PIN link to: <http://www.pin.ed.gov>.
- Next to complete the FAFSA electronically on the Web, the web site address is: <http://www.fafsa.ed.gov/>.
- FAFSA Worksheets are available in the Financial Aid Office to assist students with the FAFSA on the Web format. To request a paper form of the FAFSA, students will need to call the Federal Processor at 1.800.4FED.AID.
- Using the Panther ID, students may check the "TO DO LIST" online for any required documents that are requested for file completion. Most required documents for file completion are available through the Financial Aid Office web page under Required forms at: www.finaid.fiu.edu.

ADMISSIONS

To be eligible for most financial aid programs, students must be admitted to a degree program. However, students should not wait until they are admitted to apply for financial assistance. Students who enroll in qualified Certificate Programs are only eligible for student loans.

SUMMER ASSISTANCE

Student loans are the primary source of assistance for summer enrollment. Summer assistance is awarded automatically to students who are financial aid recipients who have a FAFSA on file during the academic year. To

receive Summer assistance for 2009, the 2008-2009 FAFSA must be in file.

ELIGIBILITY CRITERIA

To qualify for most need-based financial assistance, students must meet the following basic eligibility requirements:

- demonstrate financial need;
- be a U.S. citizen or eligible non-citizen;
- be registered with Selective Service, if required;
- not be in default on a loan, or owe a repayment on Title IV aid received at any institution;
- be enrolled at least half-time in an eligible program of study; (5 graduate-level credits)
- maintain satisfactory academic progress.

Additional requirements may apply depending on the aid programs for which a student is applying.

DETERMINING FINANCIAL NEED

Financial need is defined as the difference between the estimated cost of attendance and the amount students/spouses can reasonably be expected to contribute towards their educational expenses. Need analysis is a federally mandated formula which measures, in an equitable and systematic way, how much students and their families can afford towards their higher education. Income, assets (excluding their primary residence), family size, number of family members attending college and other factors are evaluated to give a complete assessment of a family's financial strength.

AWARDING PROCEDURES

Award decisions for newly admitted students who complete their financial aid application will be issued annually in mid February with an Early Estimated Award Notice. A financial aid package may consist of a combination of grants, loans, and student employment. Other sources of assistance such as merit awards and private and institutional scholarships will be taken into consideration when preparing the award.

Award decisions for returning students who meet the March 1st priority deadline should expect to receive an award decision by *June.

*The Financial Aid Office reviews Spring 2009 grades to determine if Satisfactory Academic Progress has been met before an award determination is made for returning students.

SOURCES OF ASSISTANCE

The University participates in all Federal and State funded programs. Institutional assistance is available for students with academic promise and financial need.

Graduate Assistantships

Graduate students pursuing a master's or doctoral degree may qualify for assistantships/fellowships and other awards offered through individual graduate academic units. Applicants should contact the Graduate Program Director in the appropriate department.

Financial Aid Services

- **Financial Aid Counseling:** A Financial Aid administrator is available on a walk-in basis to assist students with special problems, technical questions and exceptions.

- **Web Access:** Students may obtain information on the status of their application through the Financial Aid webpage: www.finaid.fiu.edu at MY FINANCIAL AID link or through <http://my.fiu.edu>.
- **LIVE CHAT:** Students can communicate on-line with Financial Aid representatives through PANTHER CHAT available through the Financial Aid webpage at: www.finaid.fiu.edu.
- **Mailing Address:** Florida International University
11200 SW 8th Street Financial Aid Office-PC 125
Miami, Florida 33199.



UNIVERSITY GRADUATE SCHOOL RULES AND REGULATIONS

CLASSIFICATION OF STUDENTS

The University classifies students as follows:

Degree-Seeking Students

Degree-seeking students are students who have been admitted into a degree program, but have not completed the requirements for the degree.

Non-Degree Seeking Students

Non-degree-seeking students may be: (1) Graduate Certificate students; (2) Advanced Diploma students; (3) students affiliated with a College or School; or (4) unaffiliated students. Students who are unaffiliated are limited to taking one semester of courses at the University. Affiliated students must be approved by a College or School and may take up to 12 hours of coursework as a non-degree-seeking student. Higher allowable course hours apply to students accepted in Graduate Certificate or Advanced Diploma programs.

The following regulations apply to non-degree seeking students:

1. Non-degree-seeking students are not required to meet the usual admission requirements and are not officially admitted as regular students. Enrollment as a non-degree-seeking student does not imply a right to be admitted in the future as a regular, degree-seeking student. Credits earned as a non-degree-seeking student will not be counted toward a degree at the University unless such a student subsequently applies for regular admission and is accepted as a degree-seeking student..

2. Registration is permitted only on a space-available basis and is determined at the time of registration.

3. No more than 12 graduate level semester hours earned as a non-degree-seeking student may be counted toward a degree. The acceptance of such credit must be recommended by the graduate program and approved by the Dean of the University Graduate School. Graduate Certificate students may count up to 18 graduate level credits provided they meet the requirements specified below under Graduate Certificates.

4. Non-degree-seeking students will not be allowed to register for more than one term without obtaining admission into a degree program at the University, obtaining admission into a Graduate Certificate program, or acquiring affiliated status from the department in which they are registering for courses.

5. Applicants who are denied admission to the University will not be allowed to register for courses as non-degree-seeking students for a period of one year without obtaining admission into a Graduate Certificate program.

6. Immigration regulations prevent most foreign nationals from enrolling in courses without being admitted into a formal degree or certificate program, depending on the type of visa that they hold. International students should contact the Office of International Student and Scholar Services for further information (www.fiu.edu/~isss).

Affiliated Students

Students applying for affiliated status as non-degree seeking students must be approved by the appropriate dean in accordance with criteria approved by that College or School's Faculty Curriculum Committee.

Graduate Certificate Students

Students seeking admission to a Graduate Certificate program need to apply through the Graduate Admissions Office using the on-line application form. The normal application fee applies to Graduate Certificate applications.

ACADEMIC DEGREE REQUIREMENTS

MASTER'S DEGREE

Course Requirements

Programs leading to a master's degree will normally require at least 30 credit hours of non-thesis course work. Master's programs normally include courses at the 5000 and 6000 levels. A maximum of 6 credits of advanced undergraduate courses (4000 level) may be included in a master's degree program if they are needed in order to fulfill program requirements. No course counted toward a student's undergraduate degree may be included in that student's masters degree program except in approved 4+1 bachelor's-master's degree programs.

Thesis Requirements

Thesis committees must have a minimum of three members, at least two of whom are from the unit offering the degree. All FIU faculty who are members of the thesis committee must be members of the Graduate Faculty. All committee appointments must be approved by the Dean of the University Graduate School.

A thesis proposal must be approved by the University Graduate School at least one semester prior to the date of graduation.

Once enrollment in thesis credits is initiated, continuous registration for at least 1 credit hour each semester (including the summer term) is required until the thesis requirement is fulfilled. During the academic year, international students must maintain full-time enrollment.

Time Limits

For the Master of Fine Arts degree, all requirements, including the successful defense of a thesis where required, must be completed within eight years of first enrollment in the master's program. For all other master's degree programs all requirements, including the successful defense of a thesis where required, must be completed within six years of first enrollment in the masters program.

Graduation Requirements

The University will confer the master's degree when the student has met the following conditions:

1. Earned an overall average GPA of 3.0 in all courses in the graduate degree program.
2. Recommended by the faculty of the College or the School.
3. Certified by the Dean of the University Graduate School that all requirements for the degree being sought have been completed.

Master's students who have been recommended for the degree by the faculty of the School or College may participate in the commencement ceremonies.

DOCTORAL DEGREE

Course Requirements

Programs leading to a doctoral degree require at least 75 credit hours beyond the bachelor's degree. These shall include a minimum of:

- 1) 30 credit hours earned in academic courses which are part of the doctoral program. Doctoral programs normally include courses at the 6000 level and above. Courses at the 5000 level may be included in a doctoral degree program in appropriate cases.
- 2) A student may enroll for dissertation credits after completing all coursework, passing the candidacy examination and being advanced to candidacy. Dissertation credits may not be taken before advancement to candidacy.

DISSERTATION REQUIREMENTS CANDIDACY

A student is admitted to candidacy upon successfully completing all required coursework, language requirements, qualifying examinations and passing the candidacy examination. The student's written request for candidacy must be approved by his or her major professor and forwarded to the program director, the unit dean, and then to the Dean of the University Graduate School.

Each candidacy examination must be prepared and graded by a committee consisting of a minimum of three faculty of the academic unit offering the degree. Admission to candidacy requires that a majority of the committee members agree that the student passed the examination. A candidacy examination may not be passed conditionally. A "Pass" on the examination cannot be made contingent upon other factors such as the completion of additional coursework or the preparation of extra research projects.

Students must be informed in writing of the results of their performance on the examinations within 30 days of the examination date. If the student fails the candidacy examination the committee, at its discretion, may provide for reexamination at a mutually satisfactory time but no more than one year from the original date of the examination. Passing the candidacy examination is requisite to continuing in the graduate program. Students who fail the candidacy examination twice will be dismissed from the doctoral program.

After a doctoral student is admitted to candidacy, continuous registration for at least 3 credit hours each semester (including the summer term) is required until the dissertation requirement is fulfilled. During the academic year, international students must maintain full-time enrollment.

DISSERTATION COMMITTEE

Dissertation committees must have a minimum of four members: at least three of whom are from the unit offering the degree and one of whom is from another academic unit at FIU. All FIU faculty who are members of the dissertation committee must be members of the Graduate Faculty and the chair of the dissertation committee must hold Dissertation Advisor Status. All committee appointments are made by the Dean of the University Graduate School.

DISSERTATION PROPOSAL

A dissertation proposal must be approved by the University Graduate School at least three semesters prior to the date of graduation.

Time Limits

All requirements, including the successful defense of a dissertation, must be completed within nine years of first enrollment in the doctoral program.

Graduation Requirements

The University will confer the doctoral degree when the student has met the following conditions:

1. Earned an overall average GPA of 3.0 in all courses in the graduate degree program.
2. Completed and defended satisfactorily a doctoral dissertation.
3. Recommended by the faculty of the College or the School.
4. Submitted to the University Graduate School three final, approved copies of the dissertation and paid required microfilming costs.
5. Certified by the Dean of the University Graduate School that all requirements of the degree being sought have been completed.

Doctoral students must have completed all requirements for the degree in order to participate in the commencement ceremonies.

GRADUATE CERTIFICATE PROGRAMS

Graduate Certificates require 15 to 18 hours of graduate credit. At least six of the hours must be in core courses taken by all individuals obtaining a given Graduate Certificate.

All the credits earned in a Graduate Certificate Program may be used in a master's degree program provided the student is admitted to the master's degree program prior to the completion of no more than 12 Graduate Certificate credits.

At the discretion of the departmental graduate committee, or equivalent, students holding a bachelor's degree who have completed 12 Graduate Certificate credits with a 3.25 or better GPA may be admitted to a master's degree program without taking the GRE or GMAT examination even if the student has an undergraduate GPA between 2.75 and 3.0.

In all cases the Graduate Program Director will evaluate whether or not the Graduate Certificate credits are acceptable in that particular graduate program.

CHANGE OF GRADUATE DEGREE PROGRAM

Only fully admitted and enrolled students may apply to change a graduate degree program without paying an additional application fee. All other students must submit a request through the Graduate Admissions process. Change of Graduate Degree Program forms are evaluated as new applications by the department into which the student wishes to transfer. A "Request for Graduate Degree Program Change" form and instructions are available on the University Graduate School website at: <http://gradschool.fiu.edu/index.html>.

REGISTRATION

All degree-seeking and non-degree-seeking students registering for more than 15 credits in any given semester must obtain the approval of the Dean of the University

Graduate School. Registration for courses is as follows: **Official Registration** is held during the preceding semester (check the Academic Calendar for the dates). Degree-seeking students are given an appointment day and time based on their classification, GPA, and credit hours completed. Students may also add/drop at this time. **Open Registration** is held following Official Registration. There is no appointment day and time and registration is on a first-come, first-served basis; for degree-seeking students. Students who have not yet registered are encouraged to do so at this time. Students who have already registered may also add or drop courses during this period.

Registration Access

All students are able to retrieve their grades, registration appointment time and day; classroom assignments; registration holds (if any) and to register/drop/add courses using the PantherSoft web-based system (MY.FIU.edu). Students must use their PantherSoft ID and password in order to utilize the system.

IMMUNIZATION

As a prerequisite to registration, Florida International University requires all students to comply with the following immunization policy regulations from the Florida Board of Governors regarding measles, mumps, rubella, meningitis and hepatitis B immunity:

1. Measles, Mumps, Rubella:

- All students born after December 31, 1956 must present documented proof of immunity to measles (Rubeola) and German measles (Rubella), as described below:

Acceptable Proof of Immunity consists of:

- a. Proof of two (2) vaccinations (doses) of MMR (Measles/Mumps/Rubella) received at least 28 days apart or two doses of measles and one Rubella
 - Vaccinations must have been received after your first birthday
 - Vaccinations must have been received in 1969 or later
- b. Proof of immunity by way of a blood test lab result (Measles and Rubella Titer)
- c. A written statement from a physician (M.D. or D.O. only) documenting a diagnosis of measles (Rubeola). Must include date of diagnosis, be signed by the physician and be on his/her official stationery. This is acceptable for measles only and does not apply to Rubella

Exemptions:

Students will be exempt from the pre-registration immunization requirement for measles, mumps, and rubella, only if they meet any one of the following three criteria:

1. Students born before January 1, 1957.
2. Medical Exemption: To claim a medical exemption, a letter must be provided from the student's doctor, signed on his/her stationery, stating the medical reason(s) why the student is not able to receive the measles and/or Rubella vaccine(s) and for how long – a permanent or temporary medical condition warranting exemption.

3. Religious Exemption: For details on how to claim religious exemption, please visit our website at www.fiu.edu/~health

To prevent delays in the ability to register for classes, all of the above documents requesting medical or religious exemptions must be received by the University Health Services at least four weeks prior to registration.

Temporary Deferments:

Temporary deferments are acceptable for the following conditions:

1. Documented pregnancy or fertility treatment
2. Documentation of breastfeeding
3. Documented illness

Deferment status requests must be submitted to the University Health Services at least four weeks prior to registration and the request must be signed by a physician, nurse practitioner or registered nurse and be on his/her official stationery.

2. Meningitis and Hepatitis B:

- All students must present documented proof of vaccination/immunity to meningococcal meningitis and hepatitis B as described below:

Acceptable Proof of Immunity consists of:

- a. Proof of one dose of meningitis vaccine and a total of three doses of hepatitis B vaccines
- b. Proof of immunity by way of a blood test lab result (applicable to hepatitis B only)
- c. A written statement from a physician (M.D. or D.O. only) documenting a diagnosis of hepatitis B. Must include date of diagnosis, be signed by the physician and be on his/her official stationery. This is acceptable for hepatitis B only and does not apply to meningococcal meningitis

Exemptions:

Students declining to receive vaccination for meningitis and/or hepatitis B must present a signed waiver of liability acknowledging that they have received and read information pertaining to the disease and despite knowledge of the risks have decided to waive receiving the vaccine (if a minor, the waiver of liability must be signed by the parent or guardian). The waiver of liability can be obtained by contacting the University Health Services department or by visiting our website at www.fiu.edu/~health.

Acceptable Forms of Documentation:

The following documents are acceptable proof of immunity, provided that the dates are acceptable and the documents are signed and stamped by the health care provider:

- Health Department Records
- Childhood Immunization Records
- School Immunization Records
- Military Service Records
- Laboratory test results demonstrating immunity to the disease

Can't Find Your Immunization Documents?

If the student is certain they have received all of the required or recommended doses of measles and/or Rubella and/or hepatitis B vaccine in the past but cannot obtain written documentation of the actual dates, it is recommended to have a blood antibody titer test

performed to determine immunity to these viral diseases. If students must register and cannot wait for the test results, they can safely receive an MMR vaccine prior to the registration process and a second dose after 28 days--assuming there are no medical contraindications to receiving the vaccine(s) as determined by the physician.

Where can I get immunized?

MMR, meningitis, and hepatitis B vaccines are available for a nominal charge at the FIU University Health Services clinics at both the University Park and Biscayne Bay Campus. For further information and additional locations, visit our website at www.fiu.edu/~health and click the Immunization link.

DROPPING AND ADDING COURSES

The Official Drop/Add period runs throughout the first week of classes (check the Academic Calendar for specific dates). During this period a student may drop or add courses without financial penalty or initiate registration with financial penalty (the late registration fee). Students may also drop courses or withdraw from the University with no record of enrollment and without a tuition fee liability. If the tuition fee has already been paid, a refund will be generated by the Student Financials Office and mailed to the local address on file.

LATE ADDS

Students may add courses with appropriate authorization and signatures until the end of the third week of classes. No course can be added after this deadline.

LATE DROPS

Courses officially dropped after the Drop/Add period and through the eighth week of the term, (summer terms have different deadlines - check the Academic Calendar for specific dates), are recorded on the student's transcript with a grade of 'DR' (dropped). The student is financially liable for all dropped courses. *Non-attendance or non-payment will not constitute a drop.*

A student may appeal the deadline for a late drop by submitting the Appeal to Drop/Withdraw form. A drop after the deadline will be approved only in the following exceptional circumstances:

- Death of a student or immediate family member (parent, spouse, child, sibling). Death certificate required.
- Involuntary call to military service. Copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

The deadline to submit appeals is six months after the end of the term in which the course was taken.

The student must provide appropriate documentation. Upon approval of the appeal, the course instructor will designate whether the student was passing or failing the course at the time of the appeal to drop form was submitted. A 'DP' grade indicates the student dropped the class with a passing grade. A 'DF' grade indicates the student dropped the class with a failing grade. The 'DF' grade is calculated in the student's term and cumulative GPA. The deadline to submit appeals is six months after the end of the term in which the course was taken.

WITHDRAWAL FROM THE UNIVERSITY

A currently registered student can withdraw from the University only during the first eight weeks of the semester. In the Summer semester, withdrawal deadlines will be adjusted accordingly. A Withdrawal Form must be completed and submitted to the Office of the Registrar. *Non-attendance or non-payment will not constitute a withdrawal.* (Refer to the Academic Calendar for the deadline dates.)

The transcript of a student who drops all classes before or during the first week of classes will contain no record of enrollment and no tuition fee will be assessed. If the tuition has already been paid, a refund will be generated by the Student Financials Office and mailed to the local address on file. If a student officially withdraws from the University prior to the end of the fourth week of classes, a 25 percent refund will be issued.

The transcript of a student who officially withdraws after the Drop/Add period and before the end of the eighth week of the term will reflect a 'W' for each course.

The transcript of a student who stops attending the University without officially withdrawing from the University will reflect an 'F' grade for each course.

A student may appeal the deadline for a late withdrawal (from all courses) by submitting the Appeal to Drop/Withdraw form. A withdrawal after the deadline will be approved only in the following exceptional circumstances:

- Death of a student or immediate family member (parent, spouse, child, sibling). Death certificate required.
- Involuntary call to military service. Copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

The deadline to submit appeals is six months after the end of the term in which the course was taken.

The student must provide appropriate documentation. Upon approval of the appeal, course instructors will designate whether the student was passing or failing the courses at the time of the appeal to withdraw. A 'WP' grade indicates the student withdrew from classes with a passing grade. A 'WF' grade indicates the student withdrew from the classes with a failing grade. The 'WF' grade is calculated in the student's term and cumulative GPA. The deadline to submit this appeal is six months after the end of the term in which the course was taken.

GRADING SYSTEM

Grade	Points Per Credit Hour
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	0.67
F	0.00
F0	Failure based on non-attendance
P	Satisfactory (Pass)
IN	Incomplete

W	Withdrew by appeal	N/A
WI	Withdrew from University	N/A
WP	Withdrew from University after deadline with passing grade	N/A
WF	Withdrew from University after deadline with failing grade	0.00
AU	Audit	N/A
DR	Dropped Course	N/A
DP	Dropped after deadline with passing grade	N/A
DF	Dropped after deadline with failing grade	0.00
NR	Grade Not Reported or Invalid ²	N/A
EM	Examination	N/A

¹IN is only a temporary symbol. It will revert to the default grade after two consecutive terms.

²NR is only a temporary symbol. It will default to an 'F' after two consecutive terms if it is not changed by the instructor.

Note: All courses for which a student is officially registered at the end of the Drop/Add Period and for which a Letter Grade, a 'DF', or a 'WF' is received are calculated in the GPA.

GRADING OPTIONS

The Colleges and the Schools make the determination of the grading option of each course. A course may be offered for a letter grade as listed above or Pass/Fail; or for an optional grade (if designated by a dept.) in which the student has a choice of either receiving a letter grade or pass/fail; or the student may choose to audit a course and an 'AU' grade will be recorded on the student's record. The grading option must be indicated at the time of registration. The grading option cannot be changed after the Drop/Add period (first week of classes). There are no exceptions to this deadline.

To register for an audit, the student must obtain the permission and signature of the instructor of the course to be audited. Once the course is registered for as 'Audit', the grading option cannot be changed.

INCOMPLETE GRADE

An incomplete grade is a temporary symbol given at the discretion of the instructor for work not completed, because of serious interruption not caused by the student's own negligence. An incomplete must be made up as quickly as possible but no longer than two consecutive semesters after the initial taking of the course or it will automatically default to the grade that the student earned in the course. The student must not register again for the course to make up the incomplete. There is no extension to the two consecutive semester deadline.

Students who have incomplete grades on their records, must remove the incomplete by the end of the fourth week of the term in which they plan to graduate. Failure to do so will result in a cancellation of graduation. The student will need to reapply for graduation.

FORGIVENESS POLICY

The forgiveness policy is a method by which students may repeat a limited number of courses to improve their grade point average (GPA). Only the grade received on the last repeat is used in the GPA calculation. Under the University's forgiveness policy, students must file a Repeated Course Form with the Office of the Registrar.

There is no time limit on the use of the forgiveness policy for grades; however, the forgiveness policy cannot be used once a degree is posted. All courses taken with the grades earned will be recorded on the student's transcript. The repeated course form will not be processed if the first or repeated grade received is 'DR', 'DP', 'IF', 'W', 'WI', 'WP', 'AU', 'NR', or 'EM'. Repeated courses will be appropriately designated (T: attempted; R: last repeat).

Undergraduate students may use the forgiveness policy a maximum of three times for the purpose of improving their GPA. The same course may be repeated up to three times or the student may use the three opportunities to apply to three different courses. Only the final grade for the three courses repeated under the forgiveness policy will be counted in computing the student's GPA. In order for a course to be considered as repeated and adjusted in the GPA, the course must be the same and must be repeated at the University. Students who have used their three options under the forgiveness policy may still repeat courses; however, both the original grade and any additional grades received through repetitions of the course will be used in computing the GPA.

A course taken on a letter grade basis must be repeated on the same basis. Students will not be allowed additional credit or quality points for a repeated course unless the course is specifically designated as repeatable (independent study, studio courses, etc.). Students not using the forgiveness policy may still repeat a course. All attempts will apply to computation of the GPA but credit for one attempt will apply toward graduation. Students must check with the appropriate academic department to determine whether there are additional restrictions on repeating courses.

DEPARTMENTAL CREDIT BY EXAMINATION

Departmental credit by examination is available for certain courses. A student who has already gained knowledge of a subject offered at the University and who wishes to take an examination in lieu of taking the course should discuss the matter with his/her academic advisor and with the department offering the course.

Awarding departmental credit by examination is the prerogative of each academic unit. To receive credit by examination, a student must be a fully admitted degree-seeking student, register, and pay for the course. Once the student is awarded the departmental credit by examination, an 'EM' grade will be recorded on the transcript.

CHANGE OR CORRECTION OF GRADES

Once submitted, end-of-semester grades (except incompletes and NRs, which default at the end of two consecutive terms) are final. They are subject to change only through a Change of Grade form to correct an error in computation or transcribing, or where part of the student's work has been unintentionally overlooked.

LAST WEEK OF THE SEMESTER

During the last week of the semester, classes meet for an extended period of time for various instructional purposes such as: final exams, lectures, group projects, and/or individual presentations.

FINAL GRADES

Final grades are available through the PantherSoft web-based system at MY.FIU.edu.

TERM COURSES ARE OFFERED

Listed next to certain courses in this catalog are the designations 'F', 'S', and 'SS'. These designations indicate that the academic department normally offers these courses during the Fall ('F'), Spring ('S'), Summer ('SS') terms. Students should be aware that there are circumstances beyond the University's control (low enrollments, financial constraints, or other extenuating situations) which may result in the courses not being offered as indicated. The University is not responsible for failure to offer a course as indicated.

APPLICATION FOR GRADUATION

Students who plan to graduate are required to apply for graduation through the PantherSoft web-based system at MY.FIU.edu.

This online application form must be submitted before the last day of classes of the academic semester prior to graduation. Students submitting the Application for Graduation after the deadline will graduate the following semester.

Students who do not graduate must re-apply for graduation and complete the remaining requirements needed to graduate. *Students must be enrolled during the term in which they graduate.*

ACADEMIC WARNING, PROBATION, AND DISMISSAL

Warning

A graduate student whose cumulative graduate GPA falls below a 3.0 will be placed on warning, indicating academic difficulty.

Probation

A graduate student on warning whose cumulative graduate GPA remains below 3.0 in the following semester will be placed on probation, indicating serious academic difficulty. The College or School of the student on probation may indicate the conditions which must be met in order to continue enrollment.

Dismissal

A graduate student on probation whose cumulative and semester GPA's fall below a 3.0 will be automatically dismissed from his or her program and the University. A graduate student will not be dismissed prior to attempting a minimum of 12 hours of coursework as a graduate student. The student has ten working days to appeal the dismissal decision. This appeal must be made in writing to the Dean of the University Graduate School. The dismissal from the University is for a minimum of one year. After one year, the student may apply for readmission to the University in the same or a different program, or register as a non-degree-seeking student.



Dismissed students who are readmitted or who register as non-degree-seeking students are placed on academic probation.

STUDENT RECORDS

Florida International University assures the confidentiality of student educational records in accordance with State University System rules, state, and federal laws including the Family Educational Rights and Privacy Act of 1974, as amended. Student academic records are maintained in the Office of the Registrar and in the academic department of the student's major. Students in some degree programs may be subject to background checks and/or drug testing prior to eligibility for internships or practicums. All currently enrolled and former students have the right to review their records to determine their content and accuracy. For the cost of photocopying, students may generally have copies of any documents in their file, *except for other institutions' transcripts*.

RELEASE OF STUDENT INFORMATION FROM EDUCATION RECORDS

The disclosure or publication of student information is governed by policies of Florida International University and the Florida Board of Education of the State University System of Florida within the framework of State and Federal Laws, including the Family Educational Rights and Privacy Act of 1974, as amended and the U.S. Patriot Act.

A student's consent is required for the disclosure or publication of any information which is a) personally identifiable and b) a part of the educational record. However, certain exceptions to that generality, both in types of information that can be disclosed and in access to that information, are allowed within the regulations of the Family Educational Rights and Privacy Act.

Florida International University discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted as its agent to provide a service instead of using University employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University. Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

The University may disclose, without consent, "directory," or public, information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, students are allowed to request that the school not disclose their directory information.

Florida International University considers the following to be directory information items:

1. name, local and permanent address, campus e-mail address, and telephone number(s);

2. date and place of birth;
3. student classification and major and minor fields of study;
4. participation in officially recognized activities and sports;
5. weight and height of members of athletic teams;
6. dates of attendance, degrees and awards received;
7. the most recent previous educational agency or institution attended by the student; and
8. photographic image.

In order to prevent access to or release of Directory Information, students must notify the Registrar (PC 130), in writing prior to the first class meeting day of the semester. Access to, or release of Directory Information will be withheld until further written instruction is received from a student or the parents of a dependent student.

Students have a right to challenge the accuracy of their educational records and may file written requests to amend these records. The Office of the Registrar (PC 130) should be contacted for further information regarding the procedure to follow for questions or problems.

For complete information regarding the policies outlined above, please contact:

University Registrar
Florida International University
University Park - PC 130
Miami, Florida 33199
e-mail: Register@fiu.edu.

TRANSCRIPTS

The transcript is the complete student record of courses taken at the University, in addition to the number of transfer credits accepted. The GPA is calculated for all courses taken at the University after Fall Term 1975. Once a baccalaureate, master's, or doctorate degree is earned, the GPA calculation starts again.

Students must request their transcript in online. Transcripts will be mailed out the next business day. The transcript will not be released if the student has a University financial liability and/or a defaulted student loan. The University may charge a fee up to \$10.00 per transcript.

CLASS ATTENDANCE

The University expects students to attend their classes in order to create an effective learning environment in which to master course content and satisfy performance objectives and learning outcomes as outlined by instructors.

Instructors may establish specific class attendance requirements and may consider attendance and participation in class in evaluating student performance. During the first week of class, instructors must inform students of any special requirements and articulate any penalties, including a failing grade that may result for non-attendance.

In general, instructors must excuse students from classes due to their military obligations, jury duty, religious days, illness, serious family emergencies and/or participation in official university activities, i.e., athletic events, artistic performances, curricular activities. Instructors must afford students a reasonable amount of time to complete course work and/or assignments missed during their approved absence.

Only registered students appearing on an official course roster may attend a class at the university.

RELIGIOUS HOLIDAYS

A faculty member who wishes to observe a religious holy day shall make arrangements to have another instructor teach the class in his or her absence, if possible, or shall reschedule the class.

Because there are some classes and other functions where attendance may be considered essential, the following policy is in effect:

1. Each student shall, upon notifying his or her instructor at the beginning of the semester, be excused from class to observe a religious holy day of his or her faith.
2. While the student will be held responsible for the material covered in his or her absence, each student shall be permitted a reasonable amount of time to make up any work missed.
3. No major test, major class event, or major University activity will be scheduled on a major religious holy day.
4. Professors and University administrators shall not arbitrarily penalize students who are absent from academic or social activities because of religious observances.

VETERANS INFORMATION

The Office of Veterans Affairs assists all veterans and their dependents who wish to receive VA educational benefits. The Office also provides personal counseling, fee deferments, tutorial assistance, and work-study jobs. Veterans who are planning to attend the University should contact the Office of Veterans Affairs two months prior to the date of entry. Such time is required to expedite the processing of paperwork for educational allowances from the Veterans Administration.

TRAINING STATUS CREDIT HOURS

Full time 9 Credits

3/4 time 7 Credits

Half time 5 Credits

Less than half time 4 Credits

Note that audited credits do not count toward training status definitions.

For rate of monthly payment of educational allowances for veterans and dependents, please contact the Office of Veterans Affairs.

For additional information regarding other Veterans Educational Programs, contact the Office of Veterans Affairs located in PC 130, University Park, 305-348-2320; and ACI 100, Biscayne Bay Campus, 305- 919-5750.

ENROLLMENT CERTIFICATION

The Office of the Registrar is responsible for certification of students' enrollment. Certifications cannot be processed if the student has a financial liability.

Enrollment Status - Graduate:

Fall and Spring Semesters

Full time: 9 credits or more

Half time: 5 - 8 credits

Less than half time: 4 credits or fewer

Summer Semester

Full time: 6 credits

Note that audited credits do not count toward enrollment status.

Doctoral students who have reached candidacy or master's students, who have completed all requirements except for the thesis, and have an approved thesis proposal on file in the University Graduate School, are considered full-time when registered for three credits per term.

Enrollment status is for continuous enrollment for the semester in which the student is in attendance. Reduction of course load may change the student's status. Contact the Office of the Registrar for further details.

FLORIDA RESIDENCY INFORMATION – FLORIDA STUDENT DEFINITION

For the purpose of assessing registration and tuition fees, a student shall be classified as a Florida or non-Florida Resident.

To qualify as a Florida Resident, the student must:

- 1) Be a U.S. Citizen, Resident Alien, parolee, Cuban National, Vietnamese Refugee, or other legal alien so designated by the U.S. Citizenship and Immigration Services.
- 2) Have established a legal residence in this State and have maintained that legal residence for 12 months immediately prior to the start of the term in which the student is seeking Florida resident classification. The student's residence in Florida must be as a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students as defined by IRS regulations, a parent or guardian must qualify).
- 3) Submit the following documentation (or in the case of a dependent student, the parent must submit documentation), prior to the last day of registration for the term for which resident status is sought:
 - A) Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which Florida resident status is sought). The following documents will be considered in determining legal residence:
 - i. Declaration of Domicile.
 - ii. Proof of purchase of a home in Florida which the student occupies as his or her residence.
 - iii. Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment record).

- B) Documentation establishing bona fide domicile in Florida which is not temporary or merely incident to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered conclusive evidence of domicile (these documents must be dated at least one year prior to the first day of classes of the term for which resident status is sought):
- i. Declaration of Domicile.
 - ii. Florida Voter's registration.
 - iii. Florida Driver's license.
 - iv. Proof of real property ownership in Florida (e.g., deed, tax receipts).
 - v. Employment records or other employment related documentation (e.g., W-2, paycheck receipts), other than for employment normally provided on a temporary basis to students or other temporary employment.
 - vi. Proof of membership in or affiliation with community or state organizations or significant connections to the State.
 - vii. Proof of continuous presence in Florida during the period when not enrolled as a student.
 - viii. Proof of former domicile in Florida and maintenance of significant connections while absent.
 - ix. Proof of reliance upon Florida sources of support.
 - x. Proof of domicile in Florida of family.
 - xi. Proof of admission to a licensed practicing profession in Florida.
 - xii. Proof of acceptance of permanent employment in Florida.
 - xiii. Proof of graduation from a high school located in Florida within the last 12 months.
 - xiv. Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bona fide Florida resident, including the age and general circumstances of the individual.
- C) No contrary evidence establishing residence elsewhere.
- D) Documentation of dependent/independent status (IRS return or affidavit).

A student can also qualify for Florida residency by one or more of the following criteria:

- 1) Become a legal resident and be married to a person who has been a legal resident for the required 12-month period, or,
- 2) Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent, or,
- 3) Be a member of the full-time instructional or administrative staff of a state public school, state

community college or state university in Florida, a spouse or dependent, or,

- 4) Be a dependent and have lived five years with an adult relative who has established legal residence in Florida, or,
- 5) Be a former student at a public institution of higher education who was properly classified as a resident who re-establishes domiciliary status and re-enrolls within a period of 12 months, or,
- 6) Make a statement as to the length of residence in Florida and qualification under the above criteria.

COLLECTION AND USAGE OF SOCIAL SECURITY NUMBERS

In accordance with Florida law, the University collects social security numbers from its students for the following reasons:

- For use in processing admission applications for purposes of identification and verification of student records;
- For use in administering federal and state programs/loans, including verification of eligibility. These programs include, but are not limited to:
- Financial Aid and other related loan programs;
- Scholarship Programs, including Bright Futures; and
- Veterans Administration benefits for qualified students
- For use in complying with IRS Reporting Requirements pertaining to the Hope Scholarship Credit and the Lifetime Learning Credit provided under federal legislation;
- For use in preparing Student Enrollment Reports required to be submitted to the National Student Loan Data System under Federal Law;
- For use in providing official student transcripts to authorized third parties (i.e. educational institutions and employers upon receipt of required releases) for student identification purposes;
- For enrollment verification and eligibility for health insurance coverage, auto insurance coverage, and benefits, as requested by students.
- For submitting reports to the Florida Board of Governors as required.

Please note that this is only a listing of the collection and use of social security numbers by the University in the admissions, registration and financial aid areas. All students are advised that social security numbers are confidential and may only be released in accordance with applicable law.



GENERAL INFORMATION

AMERICANS WITH DISABILITIES ACT (ADA)

The Director for Equal Opportunity Programs is the University's ADA Coordinator and has responsibility for ensuring access to employment, academic and public programs for persons with disabilities. The Disability Resource Center is responsible for student accommodations which include the provision of auxiliary aids and services to ensure access to academic programs.

CAMPUS LIFE

The Department of Campus Life provides learning communities that expose students to a diversity of ideas and experiences and develop the following skills: leadership, communication, problem-solving, program planning, organization, implementation, evaluation, and most importantly, the opportunity to Get Involved on Campus. Activities such as movies, athletic events, pep rallies, concerts, comedy shows, the lecture series, multicultural theme weeks, and community service are a few of the fun and educational programs offered through the department. Campus Life activities are co-curricular and cover all aspects of the educational experiences and personal growth of students. Over 230 registered organizations, on both campuses, exist to enrich campus life and contribute to the social, cultural, and academic growth of students.

The Department of Campus Life includes the Student Government Association, Council for Student Organizations (UP), Student Organizations Council (BBC), Student Programming Council, Greek Organizations (UP), Multifaith Council, Graduate Student Association, Homecoming Council, Panther Rage (UP), and Panther Power (BBC).

Location: GC 2240, University Park, (305) 348-2138; WUC 141, Biscayne Bay Campus, (305) 919-5804.

CAREER SERVICES

Career Services (CS) assists registered students at all University locations with career plans and employment needs across academic disciplines, and with all types of employers: business and industry, education, technology, government, science, construction, manufacturing, telecommunications, transportation, military and defense, and consumer products and services that may be for-profit or not-for-profit. CS works closely with the Career offices that are located in the School of Hospitality and Tourism Management, College of Business Administration, and College of Law. CS's high-tech and high-touch philosophy offers 24-7 services plus individualized attention through intake hours and one-on-one appointments.

CS encourages students to register with the office immediately after enrolling in classes—whether as a freshman, a transfer, or a graduate student. The office can help you identify a major, find an internship, or locate a career that is right for you. Get involved with Career Services. Our programs and services include:

- **CAREER DEVELOPMENT** - This area offers career interest tools, assessments, group, and individual appointments, as well as workshops for

those desiring to identify their next educational and/or career path.

- **INTERNSHIPS AND COOPERATIVE EDUCATION** - We assist students in identifying and securing practical experience in their chosen major. Assignments include part-time as well as full-time employment. Internships and Cooperative Education often provide a salary and academic credit with assignments possible at local, national or international levels. These experiences have been found to significantly increase the possibility of gaining full-time career employment at time of graduation.
- **EMPLOYMENT UPON GRADUATION** - Students are encouraged to become fully registered with CSO that allows you to take full advantage of the Campus Interview Program, Resume Referral Service, and Online Job Vacancies. You will also receive regular e-mails about networking opportunities and job fairs.
- **DELTA EPSILON IOTA** - An academic honor society dedicated to enhancing student leadership skills, career development, and networking opportunities with employers. The society supports the mission, vision, and goals of Career Services. Membership is open to undergraduate and graduate students across all academic units who meet the 3.3 GPA requirement and have earned at least 30 semester hours.

CS also provides specialized workshops like business etiquette lunches/dinners, dress for success seminars, salary negotiating, interviewing effectively, and how to network. Other activities include resume critiques, practice interviews, and advance interviewing. The office has videoconference capabilities for interviewing. For more information, click on: <http://www.fiu.edu/~career>.

Locations: University Park, GC 230, (305) 348-2423; Biscayne Bay, WUC 225, (305) 919-5770; Engineering, EC 2780, (305) 348-2423, College of Business, CBC 121, (305) 348-0025.

CHILDREN'S CREATIVE LEARNING CENTER

Established in 1975, the Children's Center, an Educational Research Center for Child Development, is an NAEYC Accredited; Gold Seal Program located on the University Park Campus, and is a department within Student Affairs.

A full day developmentally appropriate hands-on early education program is available for children of students, faculty, staff, alumni, and the neighboring community and is housed in the center's main building on the west side of campus. The program serves children who have achieved bathroom independence between the ages of two and one-half through five years, Monday through Friday, from 7:45 a.m. to 6:00 p.m. with pick-up at 12:00 p.m., 12:30 p.m., or after 3:30 p.m.

A part-time Edu-Care/Flex-Time program is offered to children of students who are three or four years of age and who have achieved bathroom independence. The part time program is housed in the Graham Center.

Students can contract for blocks of time between the hours of 8:45 a.m. to 5:00 p.m. Monday through Friday.

Evening hours are available Monday through Thursday from 5:00 p.m. to 8:00 p.m.

Center enrollment priority is given to children of students. Financial support is available for FIU Pell Grant eligible students. For more information, visit our web site <http://www.fiu.edu/~children>. To request an admission form, stop by the Center or call (305) 348-2143.

COUNSELING AND PSYCHOLOGICAL SERVICES

The Counseling and Psychological Services Centers offer an array of mental health services which enhance the emotional and cognitive well-being of students. There are centers located on the University Park Campus and the Biscayne Bay Campus. The following clinical services are available to all registered students: individual, couple, and group counseling; substance abuse and eating disorder screenings; psychological and neuropsychological testing; crisis intervention; and psychiatric services. In general, all services are confidential.

Programs available to the University community include psychoeducational workshops and seminars related to stress and time management, anger management, and other mental health issues. The Counseling Center also offers the PASS program each semester, which is a fully online workshop designed to improve students' academic and personal functioning.

Consultation services are available to faculty or staff regarding student concerns. Location: UHSC 270, University Park, (305) 348-2434; WUC 320, Biscayne Bay Campus, (305) 919-5305. <http://www.fiu.edu/~psych.ser>.

DISABILITY RESOURCE CENTER

Disability Resource Center provides information and assistance to students with disabilities who are in need of special accommodations. Services are available to students with visual, hearing, speech, physical, and learning disabilities. Services include counseling, classroom accommodations, assistive technology, note takers, readers, ASL interpreters, adapted testing, priority registration, and referrals. Support and assistance in overcoming architectural, academic, attitudinal, and other barriers encountered are provided. Requests for services must be made prior to the beginning of each semester and current documentation of disability is required to receive services.

Location: GC 190, University Park, (305) 348-3532, WUC 131, Biscayne Bay Campus, (305) 919-5345. TTY (305) 348-3852.

EQUAL OPPORTUNITY PROGRAMS

This office provides leadership and direction in the administration of the University's equalization programs for women and minorities in several ways. It prepares the University's annual Affirmative Action Plan and the State Equity Accountability Plan, assists University units in implementing and monitoring affirmative action procedures; provides oversight to the University Diversity Program; provides a channel for employee and student grievances regarding discrimination or issues indicating a need for additional affirmative actions; administers implementation of the Policy to Prohibit Sexual Harassment; coordinates University compliance with the

Americans with Disabilities Act and with Title IX of the Education Amendments of 1972; and promotes effective relationships between the University and community organizations. Equal Opportunity Programs also administers the State University System's scholarship programs funded for the purpose of increasing minority enrollment. In addition, the Office maintains a liaison relationship with State and Federal agencies dealing with EEO and affirmative action. The Office is located in PC 215, University Park, (305) 348-2785. For additional information, visit the Office of Equal Opportunity Programs website at: www.fiu.edu/~eop.

CENTER FOR LEADERSHIP AND SERVICE

The Center for Leadership and Service (CLS) provides students with developmental and experiential opportunities that foster leadership and community involvement, grounded in values and moral purpose. Through leadership education, service learning, advocacy, and volunteerism, students will become active citizens on campus, in their respective communities, and in the workplace.

Leadership education is both curricular (for credit) and co-curricular (non-credit). Non-credit leadership development programs range from one-hour skill building workshops, to semester-based programs, to a year-long living/learning community on campus. All of these programs are interactive and experiential in nature and are offered at a variety of times to accommodate our diverse student population. Programs are developmental in nature, so students can begin with an entry-level program and progress to more advanced leadership training while at FIU. Consult the department website for program descriptions and application details, www.fiu.edu/~cls.

CLS is also the central office for service development, by offering a clearinghouse and resource center for volunteer activities, service-learning, and advocacy for social issues. Three major service projects are sponsored by CLS. By taking leadership roles in organizing and implementing these projects, students are able to practice and refine their leadership skills. Alternative Break (AB) educates students about social issues and encourages them to make a difference by participating in direct service projects in communities throughout the country and abroad. Dance Marathon is a student-run philanthropy dedicated to raising money for the Children's Miracle Network. Several hundred students participate in the 25-hour fundraiser that takes an entire year and a committee of 30 students to plan and implement. Proceeds benefit the Miami Children's Hospital. Relay for Life is the signature fundraising event for the American Cancer Society. A committee of FIU students organizes the overnight walk to celebrate life and provide hope for those touched by this disease.

Students may also take on leadership roles by providing peer education. The LEAD Team is a student group that promotes and supports leadership development. The LEAD Team participates as program promoters and department ambassadors, group facilitators, classroom presenters, and consultants to student organizations.

The Center for Leadership and Service is dedicated to developing the leadership capacity and service ethic of all students, regardless of position or title.

Location: GC 242 University Park, (305) 348-6995 or; WUC 256, Biscayne Bay Campus, (305) 919-5360 Web Site: www.fiu.edu/~cls.

GRADUATE STUDENTS ASSOCIATION

The mission of the Graduate Students Association is to represent and promote the interests of the university's current and prospective graduate and professional student community by supporting scholarly activities and providing leadership, service, and financial and social opportunities. GSA exists to enrich the experience of all graduate students by flexibly responding to the changing collective needs of our primary constituent graduate and professional students.

GSA, recognized by the university as the graduate and professional students' central organization, is organized to accomplish the following purposeful functions:

- Represent the broad interests of graduate and professional students to the university's academic units;
- Advocate the position of the graduate and professional student body to other university and external constituencies;
- Act as a clearinghouse for, and provide services, and programs to current and prospective graduate and professional students;
- Provide a scholarly forum to promote interaction among graduate and professional students;
- Encourage and facilitate communication with and interaction among other graduate student organizations;
- Recommend graduate and professional students for appointment to faculty and university committees;
- Seek funding to support organizational activities, as well as graduate and professional students;
- Promote a sense of community among graduate and professional students.

The Graduate Students Association office is located in GC 2303, University Park, 305-348-4112. More information is available at www.fiu.edu/~gsa.

UNIVERSITY HEALTH SERVICES

Good health is essential to your success while at the University and throughout your life. Therefore, the University Health Services utilizes funds collected through the student health fee to provide registered students with free or low-cost holistic services with an emphasis on health education and disease prevention, as well as quality and cost-effective clinical care for the diagnosis and treatment of routine illnesses and minor injuries. Ambulatory care centers are available on each campus to serve students' primary health care needs in a convenient and patient-friendly environment.

Services offered at no charge:

- Medical office visits with registered nurses, primary care nurse practitioners, and physicians
- Physical exams
- Family planning counseling
- Lifestyle workshops, lectures, and activities for groups or individuals are provided on a variety of topics such as: wellness, stress management, nutrition, fitness, sexual health (HIV/AIDS, STD, etc.), substance

use/abuse prevention, preventive health issues/self care, and aromatherapy

- Fitness assessment (weight, body composition, blood pressure/heart rate, flexibility, cardiovascular fitness)
- Health Education consultations on nutrition, fitness, smoking cessation, wellness, stress management, aromatherapy, and sexual health)
- Anonymous HIV counseling and testing
- Yoga classes
- Chair massages
- Student clubs

Services available for a nominal charge:

- Nutrition counseling with a registered dietician
- Laboratory tests (blood, urine, and cultures)
- EKGs, vision, and hearing tests
- Physical examination and accompanying reports for class or work related purposes
- Testing and treatment for sexually transmitted infections
- Respiratory therapy
- Immunizations
- Women's clinical services: physical exams and diagnostic tests including pap smears, pregnancy tests, colposcopy*, cryotherapy*, and ultrasounds*
- Massage therapy*
- Acupuncture*
- Chiropractic*
- Pharmacy services which include over the counter products and prescription medications* at competitive prices. You may have prescriptions filled from your health care provider even if not seen at one of the FIU health clinics.
- Only available at University Park Campus.

Important information before accessing our services:

- Students must present a current, valid FIU photo ID at the time of the office visit.
- For your convenience, appointments are strongly recommended.
- If you need to cancel an appointment, you must call at least 24 hours prior to your appointment time.
- Payment is required at the time of service. Cash (at UP only), checks, money orders, MasterCard/VISA/Discover credit cards, and the FIU debit card are accepted as forms of payment.
- Services not available include: X-ray, dental care, specialty physicians, and emergency care after clinic hours and on weekends. In case of emergency on either campus, call Public Safety—Campus Police Department (24 hours a day) at 305-348-5911. Emergency care after clinic hours and on weekends is not offered at our facility.
- The student health fee does not cover diagnostic and therapeutic medical visits to outside physicians, clinics, or hospitals. Students are strongly encouraged to purchase supplemental health insurance. A health insurance policy is available at a low rate for students who take six or more credits a semester. See our website for further details about the current domestic insurance plan.
- For a complete and updated list of our services and charges, visit our website at www.fiu.edu/~health.

University Park

Location: University Health Services Complex, near the Law School and Recreation Center
Phone Number: (305) 348-2401
Fax: (305) 348-6655

Biscayne Bay Campus

Locations: Health Care Center (HCWC Building located by parking lot 1-C)
Wellness Center: (across from the Campus Support Complex)
Phone Numbers: (305) 919-5620
Fax: (305) 919-5312.

HIV/AIDS POLICY

Students and employees of the University who may become infected with the HIV/AIDS virus will not be excluded from enrollment or employment or restricted in their access to University services or facilities, unless individual medically-based judgments establish that exclusion or restriction is necessary for the welfare of the individual or for other members of the University community. The University has established an HIV/AIDS Committee which includes representatives from major University divisions and other staff as appropriate. The Committee, is responsible for monitoring developments with regard to HIV/AIDS, acting upon and administering the University's Policy on HIV/AIDS in specific cases, and coordinating the University's efforts in educating the University community on the nature of the disease. In addition, the Committee will meet as needed to consider individual occurrences of the disease which require University action.

Persons who know or suspect they are HIV-positive are expected to seek expert medical advice and are obligated, ethically and legally, to conduct themselves responsibly for the protection of others.

The University has designated HIV/AIDS counselors on both campuses who are available to provide further information on this subject. The entire HIV/AIDS policy is located on the FIU Health Care and Wellness Center web site:

<http://www.fiu.edu/~health/clinicalservices/HIVpolicy.htm>.

Contact the Health Care and Wellness Center for more information at the University Park Campus, (305) 3483080 or at the Biscayne Bay Campus, (305) 919-5620.

THE DEPARTMENT OF HOUSING AND RESIDENTIAL LIFE

The Department of Housing and Residential Life provides housing for students at both the University Park and Biscayne Bay Campuses. There are six residential complexes of which five are located at the University Park Campus and one on the Biscayne Bay Campus housing approximately 3,100 students on both campuses. Our student housing is designed to provide a comfortable living environment conducive to supporting students' academic success. The facilities are located within walking distance to classrooms, faculty offices, labs, recreation facilities, and other student services. There are multiple room types which provide a variety of accommodations to meet students' housing needs and budgets.

The campus residential community provides unique opportunities for personal growth and development, leadership experiences through student participation in

programming and activities, and developing an appreciation of and sensitivity to differences. Residents have the opportunity to enjoy social and educational events that are sponsored by the Residence Hall Association and resident assistants. The residence halls feature several Living and Learning Communities that include: FYRST (First Year Residents Succeeding Together), FYRST Explore, Arts and Architecture, Honors Place, Honors Place 2, Honors Place on the Bay, Leaders in Residence, and a Law Community. Housing academic tutors known as the A-Team are also available to assist students with their academic tutoring needs.

All of the housing facilities have fast Ethernet connections. Unlimited access to the web, basic cable television, and utilities are included in the room rental rate. Each of the residence halls is staffed with both professional and paraprofessional personnel to ensure the facilities are safe and well maintained. For more information regarding services and accommodations, please visit our web page at <http://www.fiu.edu/~housing>.

Location: Housing Office, University Park Towers (UPT) 121, Phone: (305) 348-4190, Fax: (305) 348-4295; E-mail: housing@fiu.edu. Office of Residential Life, Panther Hall (PH) 126, Phone: (305) 348-3661, Fax: (305) 348-3674 on the Biscayne Bay Campus, the Bay Vista Housing Office is (305) 919-5587.

HUMAN RESOURCES

The Division of Human Resources provides human resource management services for all employees in the academic and administrative areas including student employees, research and graduate assistants, college work study and temporary employees on all campuses. The division comprises the following areas: HR Administration, Workforce Recruitment, Compensation Administration, Employee and Labor Relations, Payroll and Employee Records, Benefits Administration, HR Management System, Organization Development and Learning, and Equal Opportunity Programs.

The University Park office is located in PC 224, (305) 348-2181. The Biscayne Bay Campus office is located in LIB 322, (305) 919-5545. For additional information, visit the Division of Human Resources website at: www.fiu.edu/hr.

INTERCOLLEGIATE ATHLETICS

FIU is a member of the National Collegiate Athletic Association (NCAA), and the Sun Belt Conference for 16 men's and women's athletic programs. The men's soccer program is a member of Conference USA. The university has competed at the NCAA Division I level (the highest classification offered by the NCAA) since September of 1987. FIU competed successfully at the Division II level since 1972. Programs and services in the Intercollegiate Athletics provide an opportunity for student-athletes to develop their athletic skills and leadership abilities in an educational setting. Much emphasis is placed on the student as a student-athlete to ensure intellectual, emotional and social well-being.

Athletics Team Membership

Athletic team membership is open to all full-time students, who meet NCAA eligibility requirements and are enrolled for 12 credits. Women's programs consist of basketball,

volleyball, soccer, golf, tennis, track, softball, cross-country, and swimming. Men's programs consist of basketball, football, soccer, baseball, track, and cross-country. To be eligible for intercollegiate competition, the university and NCAA require each student-athlete to be in good academic standing and make satisfactory progress toward a degree. Team membership is determined in a manner which does not discriminate based on race, gender, national origin, marital status, age, or disability.

Financial assistance is available to all students recruited for all 17 athletic teams. Assistance may include grants, scholarships, loans or self-help programs. To be eligible for financial assistance, each student-athlete must be in good academic standing and make satisfactory progress toward a degree.

Athletic Facilities

The Athletic Department utilizes seven facilities that serve as the sites for athletic, educational, and recreational activities.

The FIU Arena is home to our intercollegiate men's and women's basketball teams as well as our women's volleyball team. It is a multi-purpose facility with a seating capacity for 5,150 and has been the venue of our convocation and graduation ceremonies for several years. The main floor can hold four volleyball courts and two basketball courts. The two auxiliary gyms can each hold one full basketball court or a volleyball court. Also housed in the arena are seven classrooms and six locker rooms.

The FIU Soccer and FIU Softball Stadiums are the home of our intercollegiate men's and women's programs. Both stadiums are lighted. The soccer stadium seats 1,500 and the softball stadium seats 300.

The FIU Tennis Center has twelve lighted courts and is home to the women's tennis program. Six courts are open for daily recreational play.

The new FIU Football Stadium and Stadium Club will open a new era in FIU Athletics with the grand opening of Phase I of the new FIU football stadium in Fall 2008. The stadium will feature over 15,000 permanent seats, 1,400 club seats, an upper concourse and 19 full service luxury suites. The stadium will feature the 6,500 sq. ft. Stadium Club, which is a multi-purpose banquet hall that can be used for different events such as weddings, banquets, conferences and pre-game parties. The stadium is the home of our intercollegiate football program. During the fall, the facility is used to host many Miami-Dade County Schools high school football games.

The University Park Baseball Stadium is the home to our intercollegiate baseball team. The stadium has a seating capacity of 2000.

FIU students are admitted to all regular season intercollegiate athletic home game events free of charge. Presentation of valid university identification card is required.

For additional information please call: FIU Athletic Facilities 348-3258; visit the website at fiusports.com or call the Pharmed Box Office at (305) 348-4263 (**FIU-GAME**).

CAMPUS RECREATION SERVICES

Recreational sports programs and fitness facilities are available for Florida International University students, faculty, staff and alumni through the Offices of Recreation Services (UP) and Campus Recreation (BBC). Funding for these services is primarily through student fees allocated by the FIU Student Government Association (SGA).

A variety of Intramural (IM) Sports are offered on each campus, including men's, women's and co-rec leagues in sports such as flag football, basketball, volleyball, softball and soccer, and tournaments for sports like racquetball, tennis, and golf. Individuals looking for a team are encouraged to register as "free agents". Registration for Intramural Sports can be initiated via the web on the Campus Recreation Services website (see URL below).

The UP Recreation Center (RC) is equipped with state-of-the-art exercise and cardiovascular fitness equipment. In addition to free weights, the center provides resistance and selectorized equipment, steppers, upright and recumbent bicycles, treadmills, rowers, and ellipticals. A basketball gym, locker rooms and a Pro Shop are also available. The Rec Center is located west of the Health Services Complex.

The BBC Fitness Center is located in the new expansion of the first floor of the Wolfe University Center (WUC), room 160. It recently celebrated the opening of its new 12,000-square-foot fitness facility. The facility features 21 cardiovascular machines with cardio theater, locker rooms and showers, nine flat screen televisions, a Bose sound system, an array of LifeFitness selectorized, and Hammer Strength fitness equipment. Additionally, there is a state-of-the-art aerobics studio with ballet bars and separate Bose sound system. Campus Recreation has revamped the cardiovascular group exercise classes offered to members. New classes include yoga, hip hop dance, belly dancing, body sculpting, dance aerobics, and zumba. Free massages are offered on Monday.

A variety of strength and cardio equipment is provided. Low or no-cost Group Fitness classes, including pilates, kick boxing and step aerobics, are offered throughout the year on both campuses, as are specialty classes such as yoga, spinning, and body pump. Fitness orientations, body composition evaluations, and personal training are also featured. Credit and non-credit classes are available.

The two campuses offer other facilities for recreational use. At University Park, Pharmed Arena houses three indoor racquetball courts available on a reservation basis. The Tennis Centers on each campus offer lighted courts, and tennis lessons are available. The BBC Aquatic Center and Panther Hall Pool provide on-campus swimming opportunities. At UP, students have free access to nearby Tamiami Pool during lap swim hours. A current, activated Panther photo ID is required for access to all recreation facilities and programs.

Other areas of interest include adventure recreation programs, club sports, special events and swim/sport camps.

Both recreation offices provide student employment opportunities as sports officials, fitness attendants and supervisors, lifeguards, group fitness instructors, office assistants and more.

For additional information, call:

UP Recreation Services: (305) 348-2951

BBC Campus Recreation: (305) 919-4571

UP Recreation Center: 348-2575

BBC Fitness Center: 919-5678

UP Panther Hall Pool: 348-1895

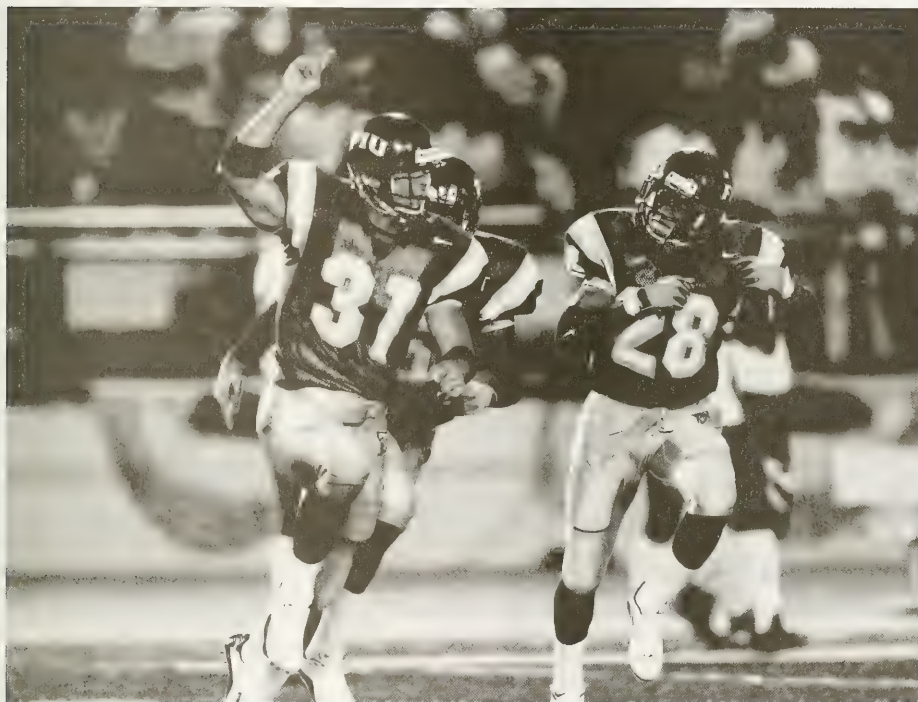
BBC Aquatic Center: 919-4595

IM Sports: 348-1054 (UP), 919-5678 (BBC)

Tennis Center: 348-6327 (UP), 919-4571 (BBC)

UP Racquetball Reservations: 348-2900

Web Site: <http://www.fiu.edu/~camprec/>.



INTERNATIONAL STUDENT AND SCHOLAR SERVICES

The International Student and Scholar Services (ISSS) office provides assistance to international students, faculty and researchers in non-immigrant status (F or J visas). The staff provides advising services on immigration, cultural, personal, social and financial concerns, as well as, maintaining the Student Exchange Visitor Information System (SEVIS) of the Department of Homeland Security tracking system for the University. The department also serves as a liaison to academic and administrative departments throughout the University.

All new and/or international transfer students MUST attend a MANDATORY orientation program before the start of their first semester and MUST report to the ISSS office within the first week of the start of classes. The ISSS also offers social and cultural programs to assist students in adapting more effectively to the University community and to living in Miami. An active International Student Club on each campus collaborates with the department in organizing various social activities. Club programs enable students to participate in the international dimension of the University and provide opportunities for involvement in the greater Miami community.

ISSS is located in GC 355, University Park, (305) 348-2421; and WUC 363, Biscayne Bay Campus, (305) 919-5813.

OFFICE OF INTERNATIONAL STUDIES

The Office of International Studies (OIS) provides students with the opportunity to spend a semester or academic year studying at one of our foreign partner institutions through the International Student Exchange (ISE) Program, or to participate in short-term FIU programs (usually ranging from 10 days to 6 weeks) led by FIU faculty members.

Students participating in the ISE Program will pay FIU tuition and fees and, with pre-approval from their department, will receive full credit for the courses taken abroad. Grades earned on these programs will not be averaged into the FIU GPA. In order to be eligible for the ISE Program, graduate students must be in good standing with a minimum 3.5 GPA.

Short-term FIU programs are typically offered during the summer and are designed and led by members of the FIU faculty. Students participating in these programs will pay FIU tuition and fees. Grades earned on these programs will be averaged into the FIU GPA.

For more information about studying abroad, please contact the Office of International Studies, located at Univ. Park, DM 442, at: (305) 348-1913; ois@fiu.edu; or <http://ois.fiu.edu>.

MULTIFAITH COUNCIL

The Multifaith Council serves student groups involved in a variety of activities. Professional representatives from various faiths are available for personal appointments. Individual denominations sponsor campus-wide programs including worship, study groups, social gatherings, and cultural events. Campus Ministry sponsors programs and activities which are non-denominational.

Location: GC 318, University Park, (305) 348-3902; CM 101, Biscayne Bay Campus, (305) 919-5247.

SEXUAL HARASSMENT, NONDISCRIMINATION, EDUCATIONAL EQUITY

All members of the University Community are entitled to study and work in an atmosphere free from illegal discrimination. Florida International University's equal opportunity policy prohibits discrimination against students and employees on the basis of their race, color, creed, age, disability, sex (including sexual harassment), religion, marital status, national origin, or sexual orientation. Under the policy, it does not matter whether the discrimination was intended or not; the focus is on whether students or employees have been treated differently or subjected to intimidation, or a hostile or offensive environment as a result of their belonging to a protected class or having a protected status. Sexual harassment includes unwelcome physical contact of a sexual nature, overt or implied threats to induce performance of sexual favors, verbal harassment, use of sexually suggestive terms, or display or posting of sexually offensive pictures.

Any employee, applicant, or student who believes that he or she may be a victim of unlawful discrimination may file a complaint with the Office of Equal Opportunity Programs, PC 215, University Park, (305) 348-2785.

OFFICE OF STUDENT CONDUCT AND CONFLICT RESOLUTION

The mission of Student Conduct and Conflict Resolution is to promote concepts of respect, civility, fairness, and conflict resolution on campus by enforcing community standards (FIU policies, federal, state, and local laws) and holding students accountable for their behavior in a fair, yet developmental manner, through the involvement of the campus community and educational development of students.

Infringement of an academic nature should be directed to the Office of the Vice Provost of Academic Personnel. Complaints that are non-academic should be directed to the Office of Student Conduct and Conflict Resolution.

The Office of Student Conduct and Conflict Resolution also provides the following:

- Mediation as an avenue to foster mutual respect and understanding when differences arise. Mediation through the Office of Student Conduct and Conflict Resolution is an informal, voluntary, and confidential way to resolve minor conflicts, disputes, or disagreements without going through formal charges or judicial proceedings
- Background checks for various agencies (Secret Service, FBI, CIA, State Department, DEA, Federal Marshals, Law Enforcement Agencies, Military, Graduate Schools, Law Schools, Dean Certifications, and Florida Bar Examiners).
- Selection and training of judicial board members and hearing officers.
- Admissions clearances – The University reserves the right to review the case of any student who has been involved in misconduct prior to admission to determine eligibility for admission.
- Educational programs for faculty, staff, and students regarding the student conduct process; ethics and integrity; conflict resolution; and dealing with disruptive students in the classroom.

Please refer to the Student Code of Conduct section in the FIU Student Handbook for more information regarding the student conduct process and procedure. The Office of Student Conduct and Conflict Resolution is located in GC 311 at the University Park Campus, (305) 348-3939. Web site: <http://www.fiu.edu/~sccr>.

UNIVERSITY CENTERS

The University Center on each campus provides direct services to students and the University community. The Graham Center (GC) at University Park and the Wolfe University Center (WUC) at Biscayne Bay Campus are the focal points for the University community to meet and interact in a non-classroom environment. Staff in the Centers coordinate the scheduling of space and assist with the production of student and University sponsored events.

As the hub of University life, these buildings house the offices of Student Government Association (SGA); Student Programming Council; Student Organizations Council (SOC); The Beacon student newspaper; Faculty Club, and departments of the Division of Student Affairs that provide services to students: Career Services, Office of Disability Services for Students, International Student and Scholar Services, Leadership Development, Kaplan Centers, Office of Multicultural Programs and Services, Campus Life, Women's Center, Volunteer Action Center, and Judicial and Mediation Services.

The University Centers also offer the services of coordinating special events, media sources, state-of-the-art and wireless computer labs, bookstores, cafeterias, grills, vending machines, credit unions, copy centers, automatic banking facilities, auditoriums, lounges, meeting rooms, ballrooms, movie theaters, and game rooms. Other services include: Lost and Found, locker rentals, vending refunds, Kaplan test preparation classes, and Panther ID card center.

The Graham Center houses the Office of the Vice President for Student Affairs and Undergraduate Education, classrooms, Art Gallery, the Radio Station (WRGP), TicketMaster, a satellite cashiering office, a fresh food concept—serving all you care to eat, Pollo Tropical, Subway, Burger King, Sushi, Bene Pizzeria, Einstein Bros Bagels, and a coffee shop. The mini-mall offers a credit union, Panther Stop convenience store, copy center, bookstore, Sant's hair and nail, travel agency, notary public, and Panther Dry Cleaners.

The Wolfe University Center (WUC) is located at the heart of FIU's Biscayne Bay Campus. It is home to the three hundred seat Mary Ann Wolfe Theater, houses a state-of-the-art computer lounge, five large meeting rooms, and a recently renovated multi-purpose ballroom. A multi-purpose dining and catering facility, the student fitness center, and several comfortable study lounges can also be found in the WUC. It is also host to one of the most complete and professional team building training programs in South Florida, the Team Ropes Adventure Challenge (TRAC). Tenants include Students Affairs Offices for Disability and Support Services, Multi-Cultural Programs and Services, Career Services, International Student Scholar Services, and Psychological and Counseling Services. University support offices include the Credit Union, the Student ID Center, Panther Print and Mail, University Technology Services, and the Parking and Transportation Office. The Barnes and Noble University

Bookstore is located on the first floor next to Panther Square.

The administrative offices of the University Centers are located as follows: GC 1215 at University Park (305) 348-2297; WUC 325 at Biscayne Bay Campus (305) 919-5800.

VICTIM ADVOCACY CENTER

The Victim Advocacy Center provides support services to FIU students, faculty, staff and University visitors who have been victims and survivors of abuse and/or violence. Confidential services are free of charge, and address issues such as sexual violence, relationship/dating/domestic abuse, stalking, assault and battery, hate crimes, harassment, and issues pertaining to adult survivors of child abuse, and homicide survivors. The Center operates a 24-hour crisis hotline, and accepts walk-ins during the regular business hours or by appointment. Victim Advocates provide emotional and practical support to ensure that all issues arising as a result of victimization are addressed according to the wishes of the victim. Victim Advocates provide assistance to the victim related to safety planning, understanding and navigating the criminal justice system, assistance in making police reports, petitioning the court for an injunction for protection ("restraining order"), finding legal assistance and such other related activities as may be desired by the victim, which might also include activities such as finding emergency safe shelter, communicating with professors and/or other parties as requested by the victim, help with university administrative procedures, student conduct proceedings, and others; escort to appointments, hearings and medical facilities. The Center also provides awareness and prevention education programs for the FIU community, and paid peer education opportunities for FIU students. Persons who have experienced actual or threatened victimization are encouraged to seek services from the Victim Advocacy Center.

Location: UHSC 210, University Park Campus (305) 348-1215; by appointment at BBC; 24-hour crisis hotline: (305) 348-3000.

WOMEN'S CENTER

The Women's Center at FIU provides numerous programs and services to support FIU women students in their personal, academic, and professional development. The Women's Center collaborates and coordinates with other university departments and student organizations to meet the needs and enhance the lives of the varied female population on campus. Programs and services are open to the entire community, but focus on women and include confidential referrals, scholarship information, and volunteer opportunities. We educate and advocate for systematic changes that will improve the lives of women and men.

Our curriculum includes the following programs:

- Mentoring Partnerships Program
- Sisterhood Retreat
- Wild Succulent Women program series
- Women Who Lead Conference
- Take Back the Night
- National Organization for Women student organization

- VOX student organization

Locations: GC 2200, University Park, (305) 348-1506 and
WUC 256, Biscayne Bay Campus, (305) 919-5359.

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FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM

FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System (SCNS). This numbering system is used by all public postsecondary institutions in Florida and 31 participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Students and administrators can use the online Statewide Course Numbering System to obtain course descriptions and specific information about course transfer between participating Florida institutions. This information is at the SCNS website at <http://scns.fldoe.org>.

Each participating institution controls the title, credit, and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "statewide course profiles."

THE COURSE PREFIX

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.

GENERAL RULE FOR COURSE EQUIVALENCIES

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions. (Exceptions are listed below).

For example, a survey course in social problems is offered by 34 different postsecondary institutions. Each institution uses "SYG_010" to identify its social problems course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Entry-Level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems."

In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the

same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent.

AUTHORITY FOR ACCEPTANCE OF EQUIVALENT COURSES

Section 1007.24(7), Florida Statutes, states:

Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions, and participating nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the state wide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

EXCEPTIONS TO THE GENERAL RULE FOR EQUIVALENCY

The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution:

- A. Courses not offered by the receiving institution
- B. For courses at non-regionally accredited institutions, courses offered prior to the established transfer date of the course in question
- C. Courses in the 900-999 series are not automatically transferable, and must be evaluated individually. These include such courses as Special Topics, Internships, Practical, Study Abroad, Thesis and Dissertations
- D. College preparatory and vocational preparatory courses
- E. Graduate courses

F. Internships, practical, clinical experiences and study abroad courses with numbers other than those ranging from 900-999

G. Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre) and skills courses in Criminal Justice are not guaranteed as transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to **(Name of Statewide Course Numbering System Institution Contact)** in the **(Office where Institution Contact may be located)** or the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the Statewide Course Numbering System office at (850) 245-0427 or SunCom 205-0427 or via the internet at <http://scns.fldoe.org>.



Special Course Directory

In addition to the regular courses listed in the catalog*, special courses may be offered using the State Wide Course Numbering System. The following table provides and inventory of course numbers by course type.

COURSE TYPE	UNDERGRADUATE				GRADUATE		
	COURSE NUMBER	LOWER	UPPER	POST BACC	MASTERS	DOCTORAL	
Directed Readings/Independent Study	-900 through -909	1--- or 2---	3--- or 4---	5---	6---	7---	
	-910 through -919	XXXX	3--- or 4---	5---	6---	7---	
	-920 through -929	1--- or 2---	3--- or 4---	5---	6---	7---	
	-930 through -939	1--- or 2---	3--- or 4---	5---	6---	7---	
Special Topics/Seminars							
Internships/Practicum/Clinical							
Practice/Cooperative Education	-940 through -949	1--- or 2---	3--- or 4---	5---	6---	7---	
Activities/Performances/Study Abroad	-950 through -959	1--- or 2---	3--- or 4---	5---	6---	7---	
Preliminary/Comprehensive Examinations	-960 through -969	XXXX	XXXX	5---	6---	7---	
Thesis/Thesis Defense	-970 through -979	XXXX	XXXX	XXXX	6---	XXXX	
Dissertation/Dissertation Defense	-980 through -989	XXXX	XXXX	XXXX	XXXX	7---	
Experimental Courses/Reserved for Special Institutional Purposes	-990 through -999	1--- or 2---	3--- or 4---	5---	6---	7---	

* FIU is in the process of re-numbering all special courses to comply with the State Wide Course Numbering sequence above. Therefore, some of the special courses listed in the catalog may change.

ACADEMIC UNITS

COLLEGE OF ARCHITECTURE AND THE ARTS

UP (305) 348-3176
Email: carta@fiu.edu
<http://carta.fiu.edu>

SCHOOL OF MUSIC

UP (305) 348-2896
BBC (305) 919-5859
Email: music@fiu.edu
<http://music.fiu.edu>

COLLEGE OF ARTS AND SCIENCES

UP (305) 348-2864
BBC (305) 919-5859
Email: casdean@fiu.edu
<http://www.fiu.edu/orgs/casdean/>

COLLEGE OF BUSINESS ADMINISTRATION

UP (305) 348-2751
BBC (305) 919-5870
Pines (954) 438-8600
Email: online@fiu.edu
<http://business.fiu.edu>

ALVAH H. CHAPMAN, JR. GRADUATE SCHOOL OF BUSINESS

UP (305) 348-3880
Email: chapman@fiu.edu
<http://business.fiu.edu/chapman>

SCHOOL OF ACCOUNTING

UP (305) 348-2581
BBC (305) 919-5780

CONTINUING AND PROFESSIONAL STUDIES (CAPS)

UP (305) 348-5669
BBC (305) 919-5669
Email: caps@fiu.edu
<http://caps.fiu.edu>

COLLEGE OF EDUCATION

UP (305) 348-2768
Pines (954) 438-8600
Email: education@fiu.edu
<http://education.fiu.edu>

COLLEGE OF ENGINEERING AND COMPUTING

UP (305) 348-2522
Email: grad_eng@fiu.edu
<http://www.cec.fiu.edu>

SCHOOL OF COMPUTING AND INFORMATION SCIENCES

UP (305) 348-2744
BBC (305) 919-5859
Email: grad_info@cis.fiu.edu
<http://www.cis.fiu.edu>

COLLEGE OF LAW

UP (305) 348-8006
Email: lawadmit@fiu.edu
<http://law.fiu.edu>

COLLEGE OF MEDICINE

UP (305) 348-0570
Email: med.admissions@fiu.edu
<http://medicine.fiu.edu>

COLLEGE OF NURSING AND HEALTH SCIENCES

UP (305) 348-7703
<http://cnhs.fiu.edu>

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

SCHOOL OF CRIMINAL JUSTICE

UP (305) 348-5890
<http://swjpa.fiu.edu/cj>

SCHOOL OF PUBLIC ADMINISTRATION

UP (305) 348-5890
<http://swjpa.fiu.edu/pa>

SCHOOL OF SOCIAL WORK

UP (305) 348-5880
<http://swjpa.fiu.edu/socialwork>

HONORS COLLEGE

UP (305) 348-4100
BBC (305) 919-5609
Email: honors@fiu.edu
<http://honors.fiu.edu>

ROBERT STEMPEL SCHOOL OF PUBLIC HEALTH

UP (305) 348-4903

Email: ph@fiu.edu<http://ssph.fiu.edu>**SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT**

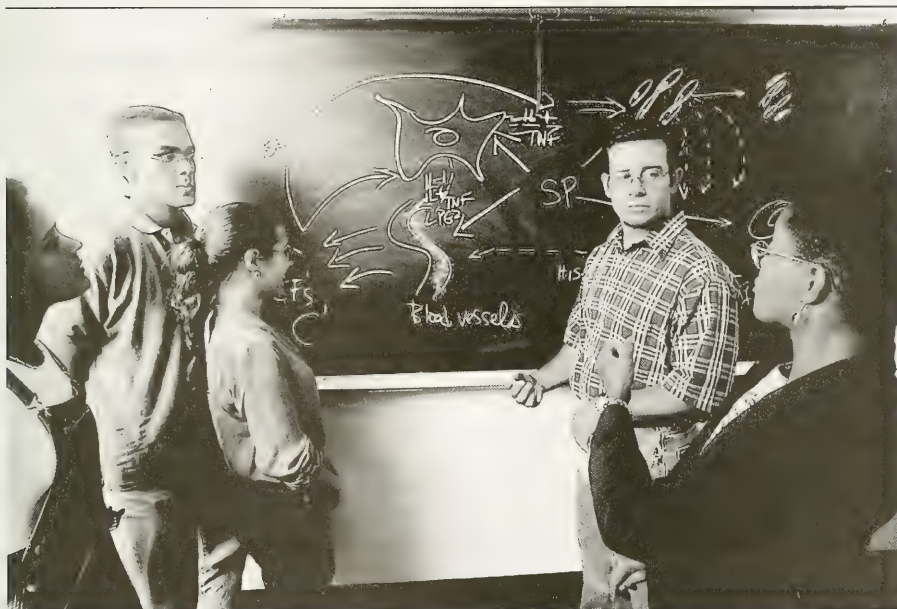
BBC (305) 919-4500

Email: hospitality@fiu.edu<http://hospitality.fiu.edu>**SCHOOL OF JOURNALISM AND MASS COMMUNICATION**

BBC (305) 919-5625

Email: sjmc@fiu.edu<http://jmc.fiu.edu/>**UNIVERSITY GRADUATE SCHOOL**

UP (305) 348-2455

Email: ugs@fiu.edu<http://gradschool.fiu.edu>

CENTERS AND INSTITUTES

Applied Research Center

URL: <http://www.arc.fiu.edu>

Biomedical Engineering Institute

URL: <http://www.bme.fiu.edu/>

Center for Accounting, Auditing, and Tax Studies

URL: <http://business.fiu.edu/centers/caats.cfm>

Center for Administration of Justice

URL: <http://caj.fiu.edu/>

Center for Advanced Distributed Systems Engineering

URL: <http://cadse.cs.fiu.edu/>

Center for Advanced Technology and Education

URL: <http://www.cate.fiu.edu/>

Center for Diversity in Engineering

URL: <http://www.eng.fiu.edu/cde>

Center of Energy and Technology of the Americas

URL: <http://ceta.fiu.edu>

Center for International Business Education & Research

URL: <http://ciber.fiu.edu>

Center for Internet Augmented Research and Assessment

URL: <http://www.ciara.fiu.edu>

Center for Labor Research and Studies

URL: <http://www.fiu.edu/~clrs/>

Center for the Study of Matter at Extreme Conditions

URL: <http://cesmec.fiu.edu>

Center for Tourism and Technology

URL: <http://www.fiu.edu/~tourtech/>

Center for Transnational and Comparative Studies

URL: <http://www.tcs-fiu.org/>

Center for Urban Education and Innovation

URL: <http://education.fiu.edu/urbaned/>

Center on Aging

URL: <http://www.fiu.edu/~coa/>

Child Anxiety and Phobia Program

URL: <http://www.fiu.edu/~capp>

Child and Family Psychosocial Research Center

URL: <http://www.fiu.edu/~capp>

Children's Creative Learning Center

URL: <http://www.fiu.edu/~children/>

Cuban Research Institute

URL: <http://lacc.fiu.edu/cri/>

Engineering Manufacturing Center

URL: <http://www.eng.fiu.edu/MRC/>

English Language Institute

URL: <http://www.eli.fiu.edu/>

Eugenio Pino Global Entrepreneurship Center

URL: <http://www.entrepreneurship.fiu.edu>

Florida - Caribbean Institute

URL: <http://lacc.fiu.edu/fci/>

Florida Center for Analytical Electron Microscopy

URL: <http://www.fiu.edu/~emlab/>

Florida - Mexico Institute

URL: <http://lacc.fiu.edu/fmi/>

High Performance Database Research CenterURL: <http://hpdrc.cs.fiu.edu/>**Infant Development Research Center**URL: <http://infantlab.fiu.edu>**Institute for Asian Studies**URL: <http://www.fiu.edu/~asian/>**Institute for Hospitality & Tourism Education & Research**URL: <http://hospitality.fiu.edu/ihter>**Institute for Judaic & Near Eastern Studies**URL: <http://www.fiu.edu/~jewstudi/index.html>**Institute for Public Management and Community Services**URL: <http://www.fiu.edu/~ipmcs/>**Institute for Public Opinion Research**URL: <http://www.fiu.edu/orgs/ipor/>**Institute for Workforce Competitiveness**URL: <http://www.fiu.edu/~xiwc/>**Intercultural Dance and Music Institute**URL: <http://lacc.fiu.edu/indami/>**International Forensic Research Institute**URL: <http://www.fiu.edu/~ifri/>**International Hurricane Research Center**URL: <http://www.ihrcc.fiu.edu/>**International Media Center**URL: <http://www.fiu.edu/~imc/>**Jack D. Gordon Institute for Public Policy & Citizenship Studies**URL: <http://ippcs.fiu.edu>**Jerome Bain Real Estate Institute**URL: http://business.fiu.edu/centers/jerome_bain.cfm**Joint Center for Environmental and Urban Problems**URL: <http://www.fiu.edu/~metcntr/>**Knight Ridder Center for Excellence in Management**

Phone: (305) 348-6332

Latin American and Caribbean CenterURL: <http://lacc.fiu.edu/>**Lehman Center for Transportation Research**URL: <http://www.eng.fiu.edu/LCTR/>**Metropolitan Center**URL: <http://metropolitan.fiu.edu>**National Resource Center on Nutrition, Physical Activity, and Aging**URL: <http://nutritionandaging.fiu.edu/>**Patricia and Phillip Frost Art Museum**URL: <http://www.fiu.edu/~museum/home.html>**Professional Development Center**URL: <http://www.fiu.edu/~pdc/>**Ryder Center for Logistics**URL: <http://www.business.fiu.edu/centers/ryder.cfm>**Southeast Environmental Research Center**URL: <http://serc.fiu.edu/>**Summit of the Americas Center**URL: <http://americas.fiu.edu/>**Telecommunications and Information Technology Institute**URL: <http://www.it2.fiu.edu/>

The Wolfsonian Museum

URL: <http://wolfsonian.fiu.edu>

Women's Studies Center

URL: <http://www.fiu.edu/~wstudies/>

SELECT SUPPORT SERVICES PHONE AND WEB ADDRESSES

ACADEMIC ADVISING (UNDERGRADUATE)

<http://undergrad.fiu.edu/advising/index.html>

UP (305) 348-2892

BBC (305) 919-5754

ADMISSIONS-GRADUATE

<http://gradschool.fiu.edu>

UP (305) 348-7442

ADMISSIONS-UNDERGRADUATE

<http://admissions.fiu.edu>

UP (305) 348-2363

BBC (305) 919-5760

Pines (954) 438-8600

ART MUSEUM (FROST)

<http://www.fiu.edu/~museum/>

UP (305) 348-2890

ATHLETICS

<http://www.fiusports.com>

UP (305) 348-2756

BOOKSTORE

<http://fiu.bkstore.com/>

UP (305) 348-2691

BBC (305) 919-5580

BURSAR / CASHIERS

<http://finance.fiu.edu/controller/student.htm>

UP (305) 348-2126

BBC (305) 919-5540

CAMPUS LIFE

<http://www.fiu.edu/~camplife/>

UP (305) 348-2138

BBC (305) 919-5804

CAMPUS RECREATION

<http://www.fiu.edu/~camprec/>

UP (305) 348-2900

BBC (305) 919-5678

CAREER SERVICES

<http://www.fiu.edu/~career/>

UP (305) 348-2423

BBC (305) 919-5770

COPY CENTER

http://obs.fiu.edu/copy_center.htm

UP (305) 348-6565

BBC (305) 919-5660

COUNSELING AND PSYCHOLOGICAL SERVICES CENTER

<http://www.fiu.edu/~psychser/>

UP (305) 348-2434

BBC (305) 919-5305

CREDIT UNION

<http://www.ucumiami.org/>

UP (786) 425-1772

BBC (786) 425-4820

FINANCIAL AID

<http://www.finaid.fiu.edu>

UP (305) 348-7272

BBC (305) 919-5750

GRADUATION

<http://commencement.fiu.edu>

UP (305) 348-2341

BBC (305) 919-5750

UNIVERSITY HEALTH SERVICES

<http://www.fiu.edu/~health/>

UP (305) 348-2401

BBC (305) 919-5620

HOUSING

<http://www.housing.fiu.edu>

UP (305) 348-4190

BBC (305) 919-5587

LIBRARY

<http://library.fiu.edu/>

UP (305) 348-2454

BBC (305) 919-5726

Pines (954) 438-8608

PARKING AND TRAFFIC

<http://parking.fiu.edu>

UP (305) 348-3615

BBC (305) 919-5558

PUBLIC SAFETY

<http://www.fiu.edu/~univpol>

UP (305) 348-2623

BBC (305) 919-5559

REGISTRAR

<http://registrar.fiu.edu>

UP (305) 348-2320

BBC (305) 919-5750

Pines (954) 438-8600

STUDENT GOVERNMENT ASSOCIATION

<http://www.fiu.edu/~sga/>

UP (305) 348-2121

BBC (305) 919-5680

UNIVERSITY LEARNING CENTER

<http://learningcenter.fiu.edu/>

UP (305) 348-2180

BBC (305) 919-5927

WOLFSONIAN MUSEUM- FIU

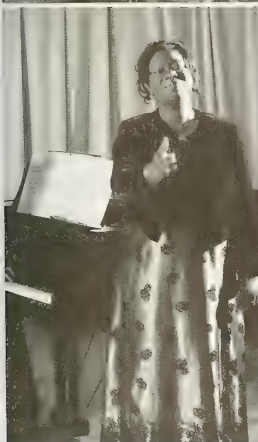
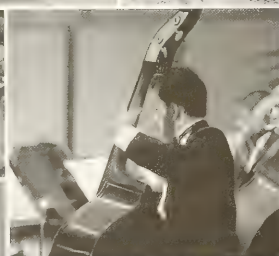
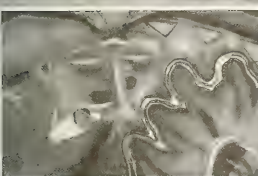
<http://www.wolfsonian.fiu.edu>

1001 Washington Avenue
Miami Beach, Florida 33139
(305) 531-1001





FLORIDA INTERNATIONAL UNIVERSITY



COLLEGE OF **ARCHITECTURE AND THE ARTS**

College of Architecture and The Arts

Dean

Associate Dean, Administration

Associate Dean, Academic Affairs

Director, School of Architecture

Director, School of Art and

Art History

Director, School of Music

Interim Director, School of Theatre,

Dance and Speech Communication

Director, The Patricia

& Phillip Frost Art Museum

Juan Antonio Bueno

David F. Bergwall

Kristine H. Burns

Nathaniel Q. Belcher

Juan A. Martinez

Kathleen Wilson

Brian Schriener

Carol Damian

The College of Architecture and The Arts is comprised of the School of Architecture, School of Art and Art History, School of Music, and the School of Theatre, Dance and Speech Communication. The dynamics among the four different schools make the college unique with programs that focus on art, design, and performance. The college embraces the visual and performing arts as well as design, and occupies a unique position in South Florida where one can prepare for a career in architecture or the arts within a major research university. Instruction in the college is enriched by distinguished faculty of artists, designers, and performers who add dimensions of applicable experience, current issues, and ongoing research to the traditional concepts related to the disciplines and professions within the college.

The college promotes exploration, discovery, and innovation among its different programs and is strongly committed to interdisciplinary education breaking new ground in art, design and performance. Its diverse programs emphasize urban engagement and are informed by current thinking and new technologies. The College of Architecture and The Arts is devoted to the value of the human mind and its creative spirit in the pursuit of knowledge and the cultivation of the imagination, intellectual curiosity, and artistic expression in our region and the world.

Developing connections with a wide range of programs and resources in the university, the college is dedicated to being engaged as a leader in art and design as well as in the performing arts in South Florida, the nation, and neighboring communities. Collaborations with Fairchild Tropical Botanic Garden, the Metropolitan Center, the Wolfsonian-FIU, Florida Keys Land and Sea Trust at Crane Point, the Concert Association of Florida, and the Università degli Studi di Genova offer students the opportunity to expand their ingenuity with a variety of resources.

We continue to extend the traditional boundaries of education to meet the contemporary challenges of a global economy with the collaboration of the schools that produce a remarkable rich environment for study. The fusion of essential disciplines with applied professions in the college provides both depth and liberty in learning. In the fields of architecture and art, the major emphases are on creative processes and studio work with a variety of supportive lectures and seminar programs. In art history, the emphasis is on scholarly study of the arts through time; lectures, seminars, and independent research are conducted on campus and in museums and libraries throughout the South Florida area. Music emphasizes skills and knowledge that are fundamental to the entire

discipline: music theory, music history, performance, aural and keyboard training, orchestration, composition, conducting, and ensemble participation. Theatre majors study the arts that contribute to theatre production—acting, costuming, directing, designing sets lighting and sound, writing plays, and theatre administration.

Admission to the College of Architecture and The Arts is selective and competitive. For information on the College of Architecture and The Arts, see <http://carta.fiu.edu>.

Graduate Programs

The College offers academic programs leading to graduate degrees in Architecture, Interior Design, Landscape Architecture, Music, Music Education, and Visual Arts.

Certificate Programs

The College offers academic programs leading to graduate certificates in History and Theory of Architecture, Furniture Design, Landscape Architecture, and Museum Studies.

Undergraduate Programs

The College offers academic programs leading to undergraduate degrees in Architecture, Interior Design, Landscape Architecture, Art, Art History, Music, Music Education, Theatre, and Dance. For more information, refer to the University Undergraduate Course Catalog.

School of Architecture

Nathaniel Q. Belcher, *Associate Professor and Director*

Marta Canavés, *Associate in Design and Chair,
Landscape Architecture Department*

Adam M. Drisin, *Associate Professor and Chair,
Architecture Department*

Janine King, *Associate Professor and Chair, Interior
Design Department*

Philip Abbott, *Assistant Professor*

Alfredo Andia, *Associate Professor*

Juan Antonio Bueno, *Professor*

Claudia Busch, *Associate in Design*

Jaime Canavés, *Professor*

Jason R. Chandler, *Assistant Professor*

Eric Goldemberg, *Assistant Professor*

Gisela López-Mata, *Associate Professor*

Marilyn R. Pomechie, *Associate Professor*

Ebru Ozer, *Assistant Professor*

Nicolás Quintana, *Scholar in Architecture and
Urbanism*

Gray Read, *Associate Professor*

David Rifkind, *Assistant Professor*

Camilo Rosales, *Associate Professor*

Roberto Rovira, *Assistant Professor*

John Stuart, *Associate Professor*

Shahin Vassigh, *Associate Professor*

The School of Architecture is dedicated to advancing the professions of architecture, interior design and landscape architecture. In keeping with the nature of these professions, the programs are taught in an interdisciplinary manner, taking full advantage of the resources and areas of expertise offered by each. The school offers three undergraduate degree programs, a Bachelor of Arts in Architecture, a Bachelor in Interior Design, and a Bachelor of Landscape Architecture (see Undergraduate Catalog for descriptions), and six graduate degree programs, a Master of Architecture, a Master of Arts in Architecture, a Master of Interior Design, a Master of Arts in Interior Design, a Master of Landscape Architecture, and a Master of Arts in Landscape Architecture. The School maintains close ties with architecture, interior design and landscape architecture professionals. Professional advisory boards periodically review the curriculum to maintain program relevance.

Students applying to the School should plan for the financial aspects of a design education. This includes the costs of computers, software, travel and field trips, tools and equipment, and modeling supplies. All students must have continuing access to a laptop computer through purchase, lease or other arrangements. For further information contact the School.

Ownership of Student Work

Student work, submitted to the School in satisfaction of course or degree requirements, becomes the physical property of the School. However, students retain all rights to the intellectual property of such work. This work may include papers, drawings, models, and other materials. The School assumes no responsibility for safeguarding such materials. At its discretion, the School may retain, return, or discard such materials. The School will not normally discard the materials of currently enrolled

students without giving the student a chance to reclaim them.

Admissions Requirements for All Graduate Degrees in the School of Architecture

All applicants must meet University graduate admissions requirements. Applicants to the School of Architecture degree programs must also submit a portfolio of creative work for School review. The deadline for portfolio submission is February 1st of each year. Portfolios submitted after this date will be considered if studio space is available.

Admission is determined by an extensive portfolio review that examines evidence of creative work, academic success, and professional achievement. Please contact the School of Architecture for specific portfolio requirements.

Students who have successfully completed the portfolio review process must also meet the minimum requirements of an undergraduate degree from an accredited college or university with undergraduate grade point average (GPA) of 3.0 on a 4.0 scale, or hold a graduate degree from an accredited institution to be fully admitted in the graduate program. When the academic record is less than 3.0 GPA, a minimum score of 1000 on the Graduate Record Examination (GRE) is required to complete for admission.

Thesis Requirement

Graduate students in all masters degree programs are required to undertake a thesis as or a master's project as part of their course of study at the School of Architecture.

Master of Architecture Professional Degree Tracks (Accredited by NAAB)

The Graduate Program in Architecture prepares students for professional practice in the field of architecture. The program is characterized by a broad interdisciplinary framework, with emphasis placed upon five thematic areas: architectural design, history/theory, building technologies, digital technology, and professional practice.

The goal of the educational experience is to develop synthetic thought and design processes using creative problem solving and critical thinking. We are committed to educating students to form independent design judgments grounded in the larger contexts of intellectual inquiry and the general pursuit of knowledge. Our goal is to prepare creative designers and highly skilled architects by developing comprehensive professional knowledge and skills.

The program maintains a commitment to excellence in teaching, creative activity, research and scholarship and seeks to attract a diverse student body with a variety of academic backgrounds, experiences and interests. Our student body and faculty reflect the diverse areas of knowledge that play a critical role in the making of the built environment and the establishment of successful design practices.

Miami is a fertile urban laboratory for the study of architecture. The great diversity of the region provides limitless possibilities for exploring historic architecture and urbanism, as well as unique and cutting edge new works by many of the world's leading architects. At the same

time, the challenges of rapid growth and urban development in Miami and the region have created an ideal crucible for the study of these timely issues. In addition, the program takes advantage of the fact that Miami is one of the principal academic and commercial gateways to Latin America and Europe.

The Master of Architecture is a professional degree accredited by the National Architectural Accrediting Board (NAAB). This degree is available to students with or without pre-professional degrees in architecture.

Students with no previous studies in architecture follow the Professional Three-Year Track, consisting of 106 credit hours to be completed in approximately three years.

Students with an undergraduate pre-professional four year degree in architecture follow the Professional Two-Year Track, consisting of 60 credit hours to be completed in approximately two years.

Students with a professional five-year undergraduate degree in architecture from a program accredited by the National Architectural Accrediting Board (NAAB) should apply for the post-professional Master of Arts in Architecture degree described in a subsequent section.

NAAB Statement

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board, which is the sole agency authorized to accredit US professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a six-year, three year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Masters degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

THREE-YEAR TRACK – 106 Credits

A professional degree for students with a Bachelor of Arts or a Bachelor of Science, or equivalent, from an accredited institution.

Prerequisites

PHY 2053	Physics w/o Calculus	4
MAC 2147	Pre-Calculus	4
ARC 4058	Computer Applications in Architecture	3

First Year (Fall Semester)

ARC 5075	Formative Studio I	6
BCN 4561	Environmental Controls I	3
ARC 5249	Design Theories	3
ARC 5711	History of Design from Antiquity to Middle Ages	3

First Year (Spring Semester)

ARC 5076	Formative Studio 2	6
ARC 5733	History of Design Renaissance to 1840	3
ARC 5582	Structures and Systems 1	3
ARC 5467	Materials and Methods of Const.	3

First Year (Summer Semester)

ARC 5077	Formative Studio 3	6
ARC 5744	History of Design 1840 to Present	3
ARC 5554	Structures 2	4
	ARC Directed Elective	3

Second Year (Fall Semester)

ARC 5361	Graduate Design 1	6
ARC 5205	Adv. Design Theories	3
ARC 5483	Innovations in Bldg Tech	3
BCN 4564	Environ. Controls 2	3

Second Year (Spring Semester)

ARC 5362	Graduate Design 2	6
ARC 6947	Research Methods	3
ARC 5176C	Computer Practice II	3
	ARC Directed Elective	3

Third Year (Fall Semester) (Miami Based or Genoa Italy Based)

ARC 6356	Graduate Design 3	6
ARC 6910	Graduate Seminar	3
BUL 6810	Legal Envir of Business	3
	ARC Directed Elective	3

Third Year (Spring Semester)

ARC 6970	Master's Project	6
	or	
ARC 6971	Master's Thesis	6
ARC 6280	Professional Office Practice	3
	ARC Directed Elective	3
	ARC Directed Elective	3

TWO-YEAR TRACK – 60 Credits

A professional degree for students with a 4-year pre-professional Bachelor of Arts in Architecture or Bachelor of Architectural Studies degree.

First Year (Fall Semester)

ARC 5361	Graduate Design 1	6
ARC 5205	Adv. Design Theories	3
ARC 5483	Innovations in Bldg Tech	3
	ARC Directed Elective	3

First Year (Spring Semester)

ARC 5362	Graduate Design 2	6
ARC 6947	Research Methods	3
ARC 5176C	Computer Practice II	3
	ARC Directed Elective	3

Second Year (Fall Semester) (Miami Based or Genoa Italy Based)

ARC 6356	Graduate Design 3	6
ARC 6910	Graduate Seminar	3
BUL 6810	Legal Environment of Business	3
	ARC Directed Elective	3

Second Year (Spring Semester)

ARC 6970	Master's Project	6
	or	
ARC 6971	Master's Thesis	6
ARC 6280	Professional Practice	3
	ARC Directed Elective	3
	ARC Directed Elective	3

Master of Arts in Architecture – 36 credits

Post-Professional Degree

(Not eligible for accreditation by NAAB)

The Master of Arts in Architecture is a post-professional degree for students with a 5-year professional Bachelor of

Architecture degree from a program accredited by NAAB. This 36 credit hour degree prepares students who wish to conduct research, teach and undertake advanced studies in architecture and related topics. The program offers two Graduate tracks. One is based at our home campus in Miami and the other at our study abroad center in Genoa, Italy.

Genoa Italy Based Post-Professional Degree

First Year (Summer University Park Campus Based)

ARC 5361	Graduate Design 1	6
ARC 6906	Independent Study: Italian Arch/Urban Histories and Theories	3
ARC 5933	Special Topics: The Architectural Treatise	3

First Year (Fall Genoa Based)

ARC 5xxx	Alternative Studio	6
ARC 5756	Architecture and the City	3
ARC 5734	Italian Language and Culture	3

First Year (Spring Genoa Based)

ARC 5362	Graduate Design 2	6
ARC 5745	Urban Architecture (Theory/History)	3
ARC 4450	Modern Art and Italy	3

Miami Based Post-Professional Degree

First Year (Fall Semester)

ARC 5361	Graduate Design 1	6
ARC 6947	Research Methods	3
	ARC Directed Elective	3

First Year (Spring Semester)

ARC 5362	Graduate Design 2	6
ARC 6910	Graduate Seminar	3
	ARC Directed Elective	3

First Year (Summer Semester)

	Elective	3
	Elective	3

Second Year (Fall Semester)

ARC 6971	Master's Thesis	6
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Urban Development Track

First Year (Summer Semester)

ARC 5370	Urban Development 1	3
ACG 6026	Accounting for Managers	3
REE 6435	Legal Environment of Real Estate	3
MAR 6805	Marketing Management in the Global Environment	3

First Year (Fall Semester)

ARC 5371	Urban Development 2	3
FIN 6428	Corporate Finance	3
ARC 6910	Graduate Seminar	3
MAN 6209	Organization Design and Behavior	3

First Year (Spring Semester)

ARC 6296	Professional Development	3
ARC 6970	Master's Project	6
LAA 6245	Theory of Urban Design	3

Master of Interior Design

Professional Degree Tracks

The Graduate Program in Interior Design prepares expert interior designers with strong professional and content background, capable of engaging in evidence-based design and able to conduct and apply research. The program is a comprehensive, interdisciplinary degree

program designed to engage students in advanced study regarding public interiors. The unique curriculum provides students with firsthand experience of a wide range of interior design issues in specialized areas of study such as hospitality design, healthcare facility design, and workplace design.

The Master of Interior Design provides professional degree tracks that are intended for individuals with bachelor degrees from other fields. This course of study has two tracks: a two-year track for students with bachelor degrees in architecture or landscape architecture, and a three-year track for students with bachelors degrees in other disciplines.

THREE YEAR TRACK – 87 Credits

A professional degree for students with a Bachelor of Arts of a Bachelor of Science, or equivalent, from an accredited institution.

Prerequisites

IND 5319	Visual Notation for Interior Design	3
MAC 2147	Pre-Calculus Math	4
ARC 4058	Computer Applications in Architecture	3

First Year (Fall Semester)

IND 5235	Formative Studio 1	6
IND 5428	Materials and Methods	3

First Year (Spring Semester)

IND 5236	Formative Studio 2	6
IND 5438	Lighting Design	3
IND 5645	Structures and Systems 1	3
IND 5137	History of Design from Renaissance to XIX Century	3

First Year (Summer Semester)

IND 5625	Design Theories	3
IND 5325	Color Theory and Application for the Built Environment	3
IND 5475	Computer Applications in Interior Design	3

Second Year (Fall Semester)

IND 5239	Formative Studio 3	6
BCN 4561	Environmental Controls 1	3
IND 5427	Interior Design Technology	3
IND 5486	Materials for Interior Design	3

Second Year (Spring Semester)

IND 6255	Graduate Design 1	6
IND 5508	Professional Office Practice	3
IND 5xxx	Sustainable Interior Design Practices	3
IND 5138	History of Modern Interior Design	3

Third Year (Fall Semester)

IND 6256	Graduate Design 2	6
IND 5485	Innovations in Bldg Tech	3
IND 5626	Project Programming	3

Third Year (Spring Semester)

IND 6970	Master's Project	6
	Directed Elective	3
	Directed Elective	3

TWO YEAR TRACK – 55 Credits

A professional degree for students with a Bachelor of Arts or a Bachelor of Science, or equivalent, in Architecture or Landscape Architecture from an accredited institution.

First Year (Fall Semester)

IND 5239	Formative Studio 3	6
BCN 4561	Environmental Controls 1	3
IND 5427	Interior Design Technology	3

IND 5486	Materials for Interior Design	3
IND 5438	Lighting Design	3
First Year (Spring Semester)		
IND 5508	Professional Office Practice	3
IND 5xxx	Sustainable Interior Design Practice	3
IND 5138	History of Modern Interior Design	3
IND 6255	Graduate Design 1	6
Second Year (Fall Semester)		
IND 5485	Innovations in Bldg Tech	3
IND 5626	Project Programming	3
IND 6256	Graduate Design 2	6
Second Year (Spring Semester)		
IND 6970	Master's Project	6
	Directed Elective	3
	Directed Elective	3

Master of Arts in Interior Design

Post-Professional Degree

Individuals with an undergraduate degree in Interior Design from an accredited professional program are eligible for admission to the program provided University requirements are met. This 36 credit hour degree prepares students who wish to conduct research, teach and undertake advanced studies in Interior Design. One year of full-time study in residency is normally required. However, a part-time study option is available subject to the review and approval of the Program. Satisfactory completion of 36 credits in the following course of study is required.

First Year (Summer Semester)		
IND 5937	Special Topics	3
IND 6639	Research Methods	3
	Directed Elective	3
First Year (Fall Semester)		
STA 6166	Statistical Methods in Research 1	3
IND 5626	Project Programming	3
IND 6910	Graduate Seminar	3
First Year (Spring Semester)		
IND 6906	Independent Study	3
IND 6979	Thesis Research	3
	Directed Elective	3
Second Year (Summer Semester)		
IND 6970	Master's Project	6
	or	
IND 6971	Master's Thesis	6
	Directed Elective	3

Master of Landscape Architecture

Professional Degree Tracks

(Accredited by LAAB)

The Graduate Program in Landscape Architecture prepares students for research and practice while focusing on the design, planning, and management of tropical and subtropical landscapes. The unique natural and cultural environments of South Florida, tropical America, the Bahamas, and the Antilles provide firsthand experience of a wide range of landscapes; the study, enrichment, and preservation of which are emphasized through relevant course work, field trips, and service activities. The Everglades and Biscayne National Parks, Fairchild Tropical Garden, and Vizcaya Palace and Gardens are among the many regional resources readily available to students enrolled in the Program. The School of

Architecture also offers study and research opportunities in cooperation with institutions in tropical America and Mediterranean Europe.

The Master of Landscape Architecture provides professional degree tracks within a rigorous academic framework intended for individuals with or without pre-professional degrees in landscape architecture.

The Three-Year Track, a first-professional Master of Landscape Architecture (MLA) is for persons who hold an undergraduate degree in a field other than landscape architecture, and intended to become landscape architecture practitioners. Applicants to the program need to check with the school's Graduate Advisor to obtain prerequisite course information.

The Two-Year Track is a professional degree for individuals with an undergraduate degree in planning, urban design, architecture, or interior design from an accredited program, or with a pre-professional undergraduate degree in planning, landscape architecture, urban design, architecture, or interior design.

The first professional Master of Landscape Architecture degree is accredited by the Landscape Architectural Accreditation Board (LAAB), an autonomous committee of the American Society of Landscape Architects. The Post-Professional Degree Master of Arts in Landscape Architecture is intended for individuals with a professional undergraduate degree in landscape architecture who wish to undertake research, teach and pursue advanced study.

THREE-YEAR TRACK – 84 Credits

A professional degree for individuals with a Bachelor of Arts or a Bachelor of Science or equivalent, from an accredited institution.

Typical Curriculum

First Year (Fall Semester)		
LAA 5716	History of Landscape Architecture	3
LAA 5371	Computer Practices in Landscape Architecture I	3
LAA 5652	Formative Studio	6
First Year (Spring Semester)		
LAA 5541	South Florida Landscapes	3
LAA 5374	Computer Practices in Landscape Architecture 2	3
LAA 5653	Site Studio	6
First Year (Summer Semester)		
LAA 6382	Analysis Methods	3
	Elective	3
Second Year (Fall Semester)		
LAA 5422	Landscape Development	3
LAA 6521	Tropical Landscapes	3
LAA 6654	Community Studio	6
Second Year (Spring Semester)		
LAA 5235	Theory of Landscape Architecture	3
LAA 5423	Landscape Construction	3
LAA 6655	Regional Studio	6
Second Year (Summer Semester)		
LAA 6916	Research Methods	3
	Elective	3
Third Year (Fall Semester)		
LAA 6910	Graduate Seminar	3
LAA 6835	Urban Studio	6
	Directed Elective	3

Third Year (Spring Semester)

LAA 5425	Landscape Documentation	3
LAA 6215	Professional Practice in Landscape Architecture	3
LAA 6970	Master's Project	6
LAA 6971	or Master's Thesis	6

TWO-YEAR TRACK – 60 Credits

A professional degree for individuals with an undergraduate degree in planning, urban design, or architecture from an accredited program, or with a pre-professional undergraduate degree in planning, landscape architecture, urban design, architecture, or interior design. Advanced standing may be granted, not to exceed 24 credits for undergraduate courses with a grade of 3.0 or better on a 4.0 point scale.

Typical Curriculum

Typical for holders of Bachelor of Arts in Architecture or Bachelor of Design in Architectural Studies, if 24 credits of advanced standing are granted.

First Year (Fall Semester)

LAA 5716	History of Landscape Architecture	3
LAA 6521	Tropical Landscapes	3
LAA 6654	Community Studio	6
	School Elective	3

First Year (Spring Semester)

LAA 5235	Theory of Landscape Architecture	3
LAA 5541	South Florida Landscapes	3
LAA 6655	Regional Studio	6
	School Elective	3

First Year (Summer Semester)

LAA 6916	Research Methods	3
LAA 6382	Analysis Methods	3

Second Year (Fall Semester)

LAA 5422	Landscape Development	3
LAA 6910	Graduate Seminar	3
LAA 6835	Urban Studio	6

Second Year (Spring Semester)

LAA 5425	Landscape Documentation	3
LAA 6215	Professional Practice in Landscape Architecture	3
LAA 6970	Master's Project	6
LAA 6971	or Master's Thesis	6

ONE-YEAR TRACK – 36 Credits

A professional degree for individuals with a graduate degree in planning, urban design, or architecture from an accredited professional program. Advanced standing may be granted, not to exceed 48 credits for graduate courses with a grade of 3.0 or better on a 4.0 point scale. Satisfactory completion of 36 credits in the following course of study is required.

Thesis or master's project and concentration 36

Master of Arts in Landscape Architecture – 36 credits

Post-Professional Degree

(Not eligible for accreditation by LAAB)

A post-professional degree for individuals with a Bachelor of Landscape Architecture from a program accredited by LAAB. One year of full-time study in residency is normally

required. A part-time study option is available subject to the review and approval of the Program.

Satisfactory completion of 36 credits in the following course of study is required.

First Year (Summer Semester)

LAA 6916	Research Methods	3
LAA 6382	Analysis Methods	3
LAA 6247	Modern Language Architecture	3
	Directed Elective	3

First Year (Fall Semester)

LAA 6835	Urban Studio	6
LAA 6910	Graduate Seminar	3
LAA 5249	Catalyst of the Urban Canvas	3
	Directed Elective	3

First Year (Spring Semester)

LAA 5235	Theory of Landscape Architecture	3
LAA 6970	Master's Project	1-6
	or	
LAA 6971	Master's Thesis	1-6

Certificate in Landscape Architecture

The Certificate in Landscape Architecture offers students the ability to explore the design, planning, and management of regional landscapes. This program is developed to serve graduate students within the School of Architecture and in related fields such as Environmental Science and Biological Sciences who would like to seek to expand their academic experience with this area of specialized study. Focused on landscape design and development, the certificate seeks to extend students' skills, knowledge, and critical thinking about the design, making, and managing of existing and built landscape environments. Students who wish to earn the Certificate in Landscape Architecture should contact a School of Architecture graduate advisor in advance of pursuing this course of study.

Certificate Requirements

Students earning this certificate must accumulate 18 credit hours with a satisfactory grade from the following list of available courses.

Program Requirements

LAA 5716	History of Landscape Architecture
LAA 5541	South Florida Landscapes
LAA 5422	Landscape Development
LAA 6521	Tropical Landscapes
LAA 5423	Landscape Construction
LAA 5235	Theory of Landscape Architecture
LAA 5425	Landscape Documentation

Certificate in History and Theory of Architecture

The School of Architecture offers a certificate in the history and theory of architecture to students currently enrolled in any of the school's programs at either the undergraduate or graduate level. In addition, motivated students in related areas of study throughout the university are permitted to pursue this certificate through written application to the Director of the Architecture Program.

The certificate involves course work in the history and theory of architecture. These courses examine the scope of ideas generated in the discipline in order to reveal and explain the production and reception of architecture. This certificate program focuses upon the historical and

theoretical circumstances within the discipline and considers the discipline of architecture through its distinct modes of thought and production such as art, technology and politics. By treating architecture as a historical and ideological production as well as a material production, the course work in this certificate program explores the important cultural forces that have conditioned the development and transformation of the discipline of architecture.

Certificate Requirements

The certificate requires 18 semester hours of coursework in history and or theory. Courses must be selected from the following approved courses or by written petition to the Director of the Architecture Program.

Program Requirements

ARC 5035	Film and the Architecture of Modern Life
ARC 5205	Advanced Design Theories
ARC 5396	Case Studies in Architecture
ARC 5750	Architectural History of the Americas
ARC 5786	Urbanism: Social History of the Built Form
ARC 5803	Preservation Architecture: Issues and Practices
ARC 5933	Special Topics in Architecture
ARC 5xxx	Videospace
ARC 5xxx	Gender and Architecture
ARC 5xxx	Urban Architecture
ARC 6947	Graduate Research Methods
ARC 6xxx	Landscape of Architecture
LAA 5235	Theory of Landscape Architecture
LAA 5243	Regional Landscape Issues
LAA 5715	History and Theory of Architecture
LAA 5716	History of Landscape Architecture

Certificate in Furniture Design

The Certificate in Furniture Design offers students the ability to explore furniture design and the creation of new pieces of furniture for commercial and residential purposes. This program is developed to serve people who wish to extend their design education into this area of specialized study. Focused on creative design process and on bringing products to market, the four courses in this certificate develop students' skills, knowledge, and critical thinking about the design, making, and marketing of furniture products for industry, retail, and gallery markets.

The Furniture Design Certificate awards graduate credit and is available to students who possess a minimum of an Associate of Arts degree in a design related field. Students who wish to enroll in furniture certificate should contact the School of Architecture graduate advisors in advance of pursuing this course of study.

Program Requirements

Studio Courses

IND 5445C	Introduction to Furniture Design	6
IND 5447C	Advanced Furniture Design	6

Subject Area Courses

IND 5164	History of 21st Century Furniture Design	3
IND 5446	Professional Practice and Entrepreneurship in Furniture Design	3

Awards and Scholarships

The following scholarships and awards are presented to students fully admitted to the Graduate Program in Landscape Architecture who have demonstrated outstanding achievements in their studies.

American Society of Landscape Architects Awards. On nomination by the Program faculty, the American Society of Landscape Architects awards a Certificate of Honor and a Certificate of Merit to the two students who have demonstrated a high degree of academic scholarship and of accomplishments in skills related to the art and technology of landscape architecture.

Sigma Lambda Alpha Honor Society. Each year, upon nomination by the Program faculty, the Alpha Chi Chapter of the Sigma Lambda Alpha Honor Society inducts the outstanding students in the Program.

The Ernest and Virginia Makemson Memorial Endowed Scholarship Fund. This fund provides support for students who have demonstrated interest and experience in restoring and preserving Florida's natural and cultural environment through the practice of landscape architecture.

Course Descriptions

Definition of Prefixes

ARC-Architecture; IND-Interior Design; LAA-Landscape Architecture

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ARC 5035 Film and the Architecture of Modern Life (3). Critical overview of social and spatial implications of film on architecture and design over the course of the 20th century.

ARC 5036 Miami in Film (3). How the natural and built environment of South Florida are portrayed in films.

ARC 5037 Architecture and Video Media (3). This course will examine intersections between architecture and video media from critical historical and contemporary perspectives.

ARC 5075 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in architecture. (F)

ARC 5076 Formative Studio 2 (6). A continuation of Architectural Design investigations begun in Formative Studio. Prerequisite: ARC 5075. (S)

ARC 5077 Formative Studio 3 (6). An Architectural Design Studio that builds upon concepts and approaches presented in Formative Studio and Formative Studio 2. Prerequisite: ARC 5076. (SS)

ARC 5175 3D Computer Modeling in Architecture (3). This advanced course will explore computer modeling in Architecture. Prerequisite: Program approval.

ARC 5176C Computer Practices in Design II (3). Advanced study in concepts, issues and methods in computer-aided architectural design. Prerequisites: ARC 4058 or equivalent. Corequisite: ARC 5362.

ARC 5177 Computer Rendering in Architecture (3). This advanced course will explore 3D rendering in Architecture. Prerequisite: Program approval.

ARC 5184 Architecture and the Virtual Environment (3). Implementation of virtual reality technology in architectural representations of existing and proposed built environments for presentation and design research. Prerequisites: ARC 4173, ARC 4174.

ARC 5186 Interactive Media (3). Presentation of digital images through an interactive and animated interface online or offline, as well as exploration of ideologies of interactive media.

ARC 5189 Visual Effects (3). Introduction of digital video and audio post-production techniques that add sound, text and visual effects to animations, as well as exploration of ideologies of digital animation.

ARC 5193 Design Presentation Graphics (3). Exploration of design presentation techniques and portfolio illustration through the use of digital photography, digital illustration, desk top publishing and web page.

ARC 5205 Advanced Design Theories (3). This seminar analyzes western and non-western examples of critical ideology through the investigation of key historical moments and current architectural theory and practice. Corequisite: ARC 5361. (S)

ARC 5249 Introduction to Design Theories (3). Introduction to the environmental parameters, morphological concepts and ideological principles that generate form and meaning in architecture. Explorations of related spheres of cultural production will also be explored in lectures, readings, and student assignments. Corequisite: ARC 5075.

ARC 5311 Building Information Modeling (3). This course will familiarize students with numerous foundational concepts such as parametric modeling, assembly modeling, associativity generative and interactive drafting.

ARC 5361 Graduate Design 1 (6). Exploration of highly articulated projects of small scale utilizing innovative research methods to strengthen and clarify design concepts taken to a detailed resolution. Corequisite: ARC 5483. (F)

ARC 5362 Graduate Design 2 (6). This course explores architectural projects of medium to large scale applying innovative building technologies to a highly resolved spatial organization. Prerequisites: Graduate standing and ARC 5316. Corequisite: ARC 6947. (S)

ARC 5370 Urban Development 1 (3). Introduction to the planning and management of urban development projects.

ARC 5371 Urban Development 2 (3). Advanced planning and management of urban development projects. Prerequisite: ARC 5370.

ARC 5381 Architecture and the Performing Arts (3). This seminar will consider what architects might learn from the performing arts, particularly how stagecraft can inform design for social spaces in the city.

ARC 5392 Urban Vertical Surface (3). Analysis of the mechanisms of surfaces: wall section, the bay, frame, grid, and their transformations.

ARC 5396 Case Studies in Architecture (3). The course explores the vast array of decisions that create the architectural experience of outstanding built works.

ARC 5467 Materials and Methods of Construction (3). Study of the types of construction and materials used in institutional, residential, and office building assemblies. How materials are installed and inspected, including the use of special equipment. Explorations of the theories and histories of construction will be explored.

ARC 5483 Innovations in Building Technology (3). Experimental approach to new materials and methods applicable to the field of construction. Prerequisite: Permission of the instructor. Corequisite: ARC 5361. (F)

ARC 5486 Architectural Installations (3). This course will examine the traces of history of architectural fabrications and its relations to the visual arts, media, and technology.

ARC 5554 Structural Design (3). Exploration of structural specifications as outlined by appropriate codes and manuals to introduce structural analysis, loadings and structural elements commonly encountered in construction for architectural analysis and design. Explorations of related and causal ideologies will be covered. Prerequisite: ARC 5582. Corequisite: ARC 5077.

ARC 5582 Structures and Systems 1 (3). Introduction to principles of physical science for design problems of structures, spaces and ecological systems. Topics include structural systems, environmental systems of building and their natural surroundings. Exploration of related and causal ideologies will be covered. Corequisite: ARC 5076.

ARC 5623 Design Ecology and Technology (3). This course explores the environmental impact of design decisions, their philosophical underpinnings and the role played by technology.

ARC 5711 History of Design: Antiquity to Middle-Ages (3). Survey of architectural, interior, and landscape design from antiquity to the middle ages, including Western and non-Western traditions. Explorations of related and causal ideologies will be covered in lectures, readings, and student assignments. Corequisite: ARC 5075.

ARC 5733 History of Design: Renaissance to XIX Century (3). Survey of architectural, interior, and landscape design from the Renaissance to the nineteenth century, including Western and non-Western traditions. Explorations of related and causal ideologies will be covered in lectures, readings, and student assignments. Corequisite: ARC 5076.

ARC 5734 Culture and Art in Italy (3). Course describes the evolution of culture and aesthetics and their immediate relationship with the creation of these works. Consists of site visits and class lectures. Additional readings and project for graduate students.

ARC 5744 History of Design from the XIX Century to Present (3). Survey of architectural, interior, and landscape design from the XIX century to the present, including western and non-western traditions. Explorations of related and causal ideologies will be covered in lecture.

ARC 5745 Urban Architecture and the 20th Century (3). The course will examine debates on urban architecture surrounding the rise of Modernism in the 1920s and will follow those lines of thought into current discussions of architectural design in cities.

ARC 5750 Architectural History of the Americas (3). Historical analysis of the development of built forms and styles in tropical and subtropical Americas, investigating its socio-political and artistic context. Prerequisite: Permission of the instructor.

ARC 5756 The Architecture of the City (3). To analyze the layering that composes Rome's urban form and to offer a necessary basis of historical and theoretical information in order to take advantage of the Roman experience. Different periods of history of Rome are presented in lectures and site visits. Additional readings and projects.

ARC 5786 Urbanism: Social History of the Built Form (3). This course introduces students to historical analysis, theories, techniques and aesthetics as they relate to urban design.

ARC 5798 Hotels: Miami and La Habana at Mid-Century (3). A research-based, in-depth study of mid-century modern hotels constructed in Miami/Miami Beach, Florida and La Habana, Cuba just prior to the Cuban revolution.

ARC 5803 Preservation Architecture: Issues and Practices (3). This course explores issues and practices of architectural preservation as an integral concern of architecture.

ARC 5905 Solar Decathlon (1). Research based course to develop the architectural and engineering concepts for the solar decathlon house.

ARC 5933 Special Topics (1-6). Coursework on a particular aspect of architecture under the direction of faculty in a classroom format. Prerequisite: Program approval.

ARC 5935 Special Topics (3). Coursework on a particular aspect of architecture under the direction of faculty in a classroom format.

ARC 5938 Special Topics Design Studio (6). An architectural design studio based on a particular aspect of architectural design and relevant ideologies under the direction of appropriate faculty.

ARC 6280 Professional Office Practice (3). Study of the ethical, legal, financial, and managerial aspects of professional practice in architecture.

ARC 6296 Professional Development (3). In-depth exploration of current legal, administrative and financial aspects of architectural practice.

ARC 6356 Graduate Design 3 (6). Architectural project emphasizing design development preparation of details and design documents for buildings of intermediate complexity. Prerequisites: Graduate standing and ARC 5362. Corequisite: ARC 6910. (F)

ARC 6906 Independent Study (1-6). Coursework on a particular aspect of Architecture under the direction of faculty in an individual study format. Prerequisite: Program approval.

ARC 6910 Graduate Seminar (3). Coursework under the direction of faculty in preparation for a master's thesis or master's project in architecture. Prerequisite: ARC 6947. Corequisite: ARC 6356.

ARC 6947 Research Methods (3). Methods of data acquisition, analysis, and interpretation used in architecture research. Corequisite: ARC 5362.

ARC 6970 Master's Project (1-6). Coursework under the direction of faculty for the completion of project by candidate for the degree of Master of Architecture. Prerequisite: ARC 6910.

ARC 6971 Master's Thesis (1-6). Coursework under the direction of faculty for the completion of a research or design thesis by candidate for the degree of Master of Architecture. Prerequisite: ARC 6910.

IND 5137 History of Design from the Renaissance to XIX Century (3). Survey of the architectural, interior and landscape design from the Renaissance to the XIX century, including western and non-western traditions.

IND 5138 History of Modern Interiors (3). An analysis of the history of architectural interiors, furniture and decorative arts from the Neo-Classical period to the present time.

IND 5164 History of 21st Century Furniture Design (3). Students will research and analyze the social, political, technical economic and theoretical forces that contribute to new movements in late 20th century and early 21st century furniture design.

IND 5235 Formative Studio 1 (6). Introduction to concept development, spatial expression, and representational techniques in architecture.

IND 5236 Formative Studio 2 (6). A continuation of Architectural Design investigation begun in Formative Studio. Prerequisite: IND 5235.

IND 5239 Interior Design Formative Studio 3 (6). Interior Design Studio exploring advanced concepts and approaches toward complex problem solving and critical approach to making solutions. Prerequisite: Graduate standing. Corequisite: IND 5427.

IND 5319 Visual Notation for Interior Design (3). Course will develop drawing skills in multiple media, actively engaging in projects of drawing as a medium of investigation, documentation, memory, observation and presentation for interior design. Prerequisite: Program approval.

IND 5325 Color Theory and Application for the Built Environment (3). Use of color in the built environment including principal color systems, methods of color harmony, effects of visual phenomena, and various psychological, cultural and historical implications.

IND 5427 Interior Design Technology (3). Conceptual framework for design of building assemblies, understanding of construction technologies and properties of interior building materials. Construction drawings and specifications are produced. Prerequisite: Graduate standing. Corequisite: IND 5239.

IND 5428 Materials and Methods (3). Research and analysis of building materials and methods. Properties of materials and performance in a variety of light building, interior and environmental assemblies are investigated.

IND 5438 Lighting Design (3). Exploration of theories and applications of lighting design. Emphasis on studying

research about interactions between light, people and articulation of interior space.

IND 5445C Furniture Design (6). Providing a general overview of furniture design process, this design/build studio course teaches students about ergonomics, scale, space, structure and materiality related to furniture design.

IND 5446 Professional Practice and Entrepreneurship in Furniture Design (3). Learn about industry standards and entrepreneurial strategies that successful designers and furniture companies use when bringing new designs to different markets.

IND 5447C Advanced Furniture Design (6). Research, analyze and design furniture using wood, metals and plastics. Instruction will include advanced technical skills and emphasis on qualitative and conceptual aspects of design.

IND 5475 Computer Applications in Architecture (3). Study of computer software packages applicable to the architecture office environment, with particular emphasis on CAD software, graphics packages and desktop publishing.

IND 5485 Innovations in Building Technology (3). Experimental approach to new materials and methods applicable to the field of construction. Field and laboratory exercises in the evaluation of technical support assemblies for buildings. Prerequisite: IND 5427. Corequisite: IND 6255.

IND 5486 Materials for Interiors (3). Analysis and research of critical issues affecting selection and application of interior finish materials.

IND 5508 Professional Practice (3). Advanced study office administration, contract negotiation, fee structure, professional ethics, client and public relations. Investigations and analysis of business organizations and project management. Prerequisite: Program approval.

IND 5625 Design Theories (3). Overview of the environmental parameters, morphological concepts and ideological principles that generate form and meaning in interior design, architecture, and landscape architecture.

IND 5626 Project Programming (3). This seminar analyzes western and non-western examples of critical ideology through the investigation of key historical moments and current architectural theory and practice. Prerequisite: Program approval.

IND 5645 Structures and Systems 1 (3). Study of physical science for structural design problems and for ecological systems. Review, analyze, and evaluate structural systems and building environmental systems.

IND 5937 Special Topics (3). Examination of the conceptual framework supporting the theory, and research applications in specialized area of interior design. Prerequisite: Program approval.

IND 5938 Cejas Eminent Scholar Seminar (1-3). This is a seminar/workshop course taught by distinguished educators, scholars, and designers. Lectures, critical readings, and discussions of thematic topics make up the methodology of the course.

IND 6255 Graduate Design 1 (6). Exploration of highly articulated projects utilizing innovative research methods to strengthen and clarify design concepts taken to a detailed resolution. Prerequisite: IND 5239. Corequisite: IND 5485.

IND 6256 Graduate Design 2 (6). Advanced design topics explored. Focus on student specialization interest. Emphasis on integration of design process from conceptual formulation and programming to design development and reflection. Prerequisite: IND 6255.

IND 6639 Research Methods (3). Methods of data acquisition, analysis, and interpretation used in interior design research. Prerequisite: Program approval.

IND 6906 Independent Study (3). Coursework on a particular aspect of Architecture under the direction of faculty in an individual study format. Prerequisite: Program approval.

IND 6910 Graduate Seminar (3). Coursework under the direction of faculty in preparation for a master's thesis or master's project in interior design. Prerequisites: IND 6906, program approval.

IND 6970 Master's Project (1-6). Coursework under the direction of faculty for the completion of project by candidate for the degree of Master of Interior Design. Prerequisites: Program Approval and IND 6910.

IND 6971 Master's Thesis (6). Coursework under the direction of faculty for the completion of thesis by candidate for the degree of Master of Interior Design. Prerequisites: Program approval and IND 6910.

IND 6973 Thesis Seminar (3). Students develop an independent research strategy that will enable them to address their thesis question. Prerequisite: IND 6979.

IND 6979 Thesis Research (1-3). Design, development, and execution of research project for master's thesis in interior design. Prerequisite: Graduate standing.

LAA 5233 Theory of Planting Design (3). Study of principles and methods related to the ecological, functional, and aesthetic use of vegetation in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5235 Theory of Landscape Architecture (3). Critical review of the environmental parameters, morphological concepts and ideological principles that generate form and meaning in landscape architecture. Prerequisite: LAA 5716. (S)

LAA 5243 Regional Landscape Issues (3). Exploration of the landscape as cultural construct of social, economic, and scientific values relevant to regional issues of land use and management. Prerequisite: Program approval. (SS)

LAA 5249 Catalysts of the Urban Canvas (3). Seminar-based course exploring the relationship of focused landscape and architectural interventions in the evolution and development of the urban fabric and its physical context.

LAA 5331 Site Analysis and Design (3). Introduction to ecological, functional, and aesthetic considerations in site analysis, planning and design. Prerequisite: Program approval.

LAA 5343 Visual Notation in Landscape Architecture I (3). Course will develop drawing skills in multiple media, actively engaging in projects of drawing as a medium of investigation, documentation, memory, observation and presentation for landscape architecture. Prerequisite: Program approval.

LAA 5371 Computer Practices in Landscape Architecture 1 (3). Computer applications of graphics, modeling, and animation techniques used in landscape architecture. Prerequisite: Program approval. (S)

LAA 5374 Computer Practices in Landscape Architecture 2 (3). Computer application of drafting and design techniques used in landscape architecture. Prerequisite: LAA 5371, Program approval. (F)

LAA 5378 GIS Applications in Landscape Modeling (3). Introduction to modeling capabilities of GIS in the environmental planning process addressing the natural and cultural characteristics of the landscape. Prerequisite: Program Approval. (SS)

LAA 5422 Landscape Development (3). Technical aspects of the design and specification of earthwork, including materials, products, and methods of installation used in landscape development. Prerequisite: LAA 5371. (F)

LAA 5423 Landscape Construction (3). Technical aspects of the design and specification of sitework, including materials, products, and methods of installation used in landscape construction. Prerequisite: LAA 5422. (S)

LAA 5425 Landscape Documentation (3). Production of landscape documents including drawings and project manual, bidding documents, contract documents and technical specifications on the computer. Prerequisite: LAA 5423. (S)

LAA 5427 Landscape Structures (3). Production of landscape construction details for structures and systems used in landscape architecture. Prerequisite: LAA 5423. (F)

LAA 5540 Landscape Horticulture (3). Overview of horticultural management practices related to the growth, transport, installation, and maintenance of vegetative materials used in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5541 South Florida Landscapes (3). Study of structure, function, and change in the natural and cultural landscapes of tropical and subtropical Florida. Prerequisite: Program approval. (S)

LAA 5652 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in landscape architecture. Prerequisite: LAA 5343 and LAA 5xxx Computer Applications in Landscape Architecture. (F)

LAA 5653 Site Studio (6). Application of landscape architecture principles and methods to site design in tropical and subtropical contexts. Prerequisite: LAA 5652. (S)

LAA 5715 History and Theory of Architecture (3). Overview of the history and theory of architecture and

urban design from antiquity to the present. Prerequisite: Program approval. (SS)

LAA 5716 History of Landscape Architecture (3). Historical survey of the principal sites and traditions manifested in the evolution of landscape architecture and urban design from antiquity to the present. Prerequisite: Program approval. (F)

LAA 5905C Special Topics Design Studio (6). A landscape architectural design studio based on a particular aspect of landscape architectural design and relevant ideologies under the direction of appropriate faculty. Prerequisite: Program Approval.

LAA 5940 Landscape Architecture Internship (3). Advanced issues in professional practice learned through work experience with a licensed professional.

LAA 6215 Professional Practice in Landscape Architecture (3). Study of the ethical, legal, financial, and managerial aspects of professional practice in landscape architecture. Prerequisite: Program approval. (S)

LAA 6222 Communications in Landscape Architecture (3). Methods of verbal and graphic presentations, workshops, and publications used in landscape architecture. Prerequisite: Program approval. (SS)

LAA 6245 Theory of Urban Design (3). Critical review of the principal theories of urbanism that have influenced the fabric and image of the city in Western history. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6246 Typology of Landscape Architecture (3). Critical examination of the origin, development and transformation of form and meaning in modern and postmodern landscape architecture and urban design. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6247 Modern Landscape Architecture (3). Critical review of the origins and development of modern and post modern expressions in landscape architecture. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6342 Landscape Aesthetics (3). Critical review of the assessment models used to evaluate the aesthetic quality of the landscape. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6344 Italian Design and Culture (3). Course to develop practical facility with the Italian language for conducting everyday tasks, engaging socially and increasing the qualitative depth of the work to be accomplished in the course. Corequisite: LAA 6345, LAA 6910, LAA 6835.

LAA 6345 Landscape Architecture of the City (3). The study of urban landscape architecture in Genoa, Italy, with emphasis on analysis and representation using manual drawing, digital photography, and conceptual model. Corequisite: LAA 6344, LAA 6910, LAA 6835.

LAA 6373 Sound in Landscape Architecture (3). An examination of the ecological, acoustic, aesthetic, and historical aspects of the sonic environment. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6382 Analysis Methods (3). Theories and methods of the organization, analysis, and interpretation of

cartographic data using geographic information systems.
Prerequisite: Program approval. (SS)

LAA 6521 Tropical Landscapes (3). Study of the structure, function, and change in the natural and cultural landscapes of tropical and subtropical regions.
Prerequisite: Program approval. (F)

LAA 6551 Sustainable Landscapes (3). Study of the principles that sustain a balance between natural resources and human aspirations in the landscapes of tropical and subtropical regions. Prerequisite: LAA 6541. (SS)

LAA 6654 Community Studio (6). Application of landscape architecture principles and methods to community planning and design in tropical and subtropical contexts. Prerequisite: LAA 6653. (F)

LAA 6655 Regional Studio (6). Application of landscape architecture principles and methods to regional management, planning, and design in tropical and subtropical contexts. Prerequisite: LAA 6654. (S)

LAA 6745 Preservation of Landscape Architecture (3). Critical examination of the formation and preservation of historic sites with emphasis on interpretation, analysis and evaluation of cultural landscapes and urban places.
Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6835 Urban Studio (6). Application of interdisciplinary principles and methods to urban planning and design in tropical and subtropical contexts.
Prerequisite: LAA 6655. (F)

LAA 6905 Independent Study (1-6). Coursework on a particular aspect of landscape architecture under the direction of faculty in an individual study format.
Prerequisite: Program approval. (F,S)

LAA 6910 Graduate Seminar (3). Coursework under the direction of faculty in preparation for a master's thesis or master's project in landscape architecture. Prerequisites: LAA 6382, LAA 6916. (F)

LAA 6916 Research Methods (3). Methods of data acquisition, analysis, and interpretation used in landscape architecture research. Prerequisite: Program approval. (SS)

LAA 6936 Special Topics (1-3). Coursework on a particular aspect of landscape architecture under the direction of faculty in a classroom format. Prerequisite: Program approval. (F,S,SS)

LAA 6970 Master's Project (1-6). Coursework under the direction of faculty for the completion of project by candidate for the degree Master of Landscape Architecture. Prerequisite: LAA 6910.

LAA 6971 Master's Thesis (1-6). Coursework under the direction of faculty for the completion of a research or design thesis by candidate for the degree Master of Landscape Architecture. Prerequisite: Program approval and LAA 6910. (S)

School of Art and Art History

Juan Martínez, *Professor and Director*

Tori Arpad, *Associate Professor*

Sharon (Pip) Brant, *Associate Professor*

Ralph F. Buckley, *Professor*

William Burke, *Professor and Chair, Academic Programs*

Kathy Dambach, *Professor*

Carol Damian, *Professor*

Eduardo del Valle, *Professor*

Mirta Gómez, *Professor*

Daniel Guernsey, *Associate Professor*

Clive King, *Professor*

Jacek Kolasinski, *Assistant Professor*

William Maguire, *Professor*

Manuel Torres, *Professor*

Barbara Watts, *Associate Professor*

Master of Fine Arts in Visual Arts

The MFA in Visual Arts is an intense, production-oriented studio art program directed toward individual development. The curriculum is designed for maximum flexibility to accommodate both those seeking advanced training in a particular studio area and those whose interests may involve more media cross-over. Graduates of the program will be prepared for careers as professional artists. The MFA is the terminal degree in Studio Art.

Graduate Admission Requirements

1. Successful completion of the Bachelor of Fine Arts, Bachelor of Arts, or an equivalent degree;
2. A written statement of intent, which should enhance the Graduate Admissions Committee's understanding of the applicant's creative work and outlined plan for its development in the program;
3. 20 slides of the applicant's creative work;
4. Three letters of recommendation from persons who are in a position to evaluate the applicant's previous professional, academic and personal performance and his or her potential for success in the graduate program;
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required and a minimum score of 50 on a Test of Spoken English (TSE).

Applicants must submit the above to the Graduate Secretary, School of Art and Art History, University Park Campus, Miami, Florida 33199

School copy of the University Graduate Admission application submitted online to the University Graduate Admissions Office. See <http://gradschool.fiu.edu>.
Deadline date for Application is February 15 for Fall admission.

Degree Requirements

The MFA requires 60 semester hours of course work at the graduate level to be distributed as follows:

Tutorial Instruction in Studio Area Concentration	18
Tutorial Instruction in Studio Electives	17
ART 5930 Studio Pedagogy	1
ART 5939 Graduate Art Seminar I	3
ART 5796 Critical Studies in the Visual Arts	3

and (3) Art History electives	9
ART 6971 Graduate Prospectus & Exhibition Preparation	3
ART 5907C Directed Study	3
Elective(s)	3

Note: The catalog descriptions for the following courses are for MFA students as well as MS Art Education students.

ART 5930C Drawing, ART 5391C Figure Drawing, ART 5408C Printmaking, ART 5580C Painting, ART 5740C Sculpture, ART 5792C Figure Sculpture, PGY 5116C Color Photography, PGY 5425C Photography

Research for the written account of the work will be directed by a faculty committee composed of the candidate's major professor, a member of the studio faculty, and an art historian. The Committee will be formed during the second semester of enrollment and will meet periodically to supervise the candidate's progress during the entire period of study.

Upon completion of twenty hours of course work and prior to the completion of thirty hours, the candidate must submit his/her work to the faculty committee, which will determine the student's progress and capability for continued enrollment in the MFA program. This review will focus on issues such as growth of the student's work, the consistency of production at the graduate level, and the demonstrated ability to fulfill the expectations of a graduate degree. All of the student's work completed by this time will be assembled and reviewed and the student will be questioned about specific issues related to his/her work. Successful completion of this examination is prerequisite for continuing as a candidate for the degree.

In the last semester of enrollment, the candidate will present a graduate exhibition to be displayed in the Patricia and Phillip Frost Art Museum at FIU or at an appropriate alternative space. The exhibition will be curated by the MFA candidate and the members of his/her committee. At the same time, the committee will conduct an oral examination with the candidate. This will take place in the exhibition space during the display of the candidate's graduate exhibition. It will focus on the exhibition and the development of the candidate's work. This examination must be completed successfully in order for the candidate to be awarded his/her degree.

Graduate Certificate in Museum Studies

The Graduate Certificate in Museum Studies is an 18 credit program intended to prepare students for professional employment in museums and historic sites. The program offers graduate level courses appropriate for museum work as well as some cross-listed courses from associated academic disciplines. Courses are most appropriate for people interested in museum careers and are designed to give a broad overview of museum history as well as a solid grounding in museological theory and practice. In accordance with the mission of FIU, attention is given to issues of diversity and multiculturalism; the relationship of museums to changing populations and interdisciplinary trends in a variety of different collecting environments ranging from the Arts to History, Anthropology, Archaeology, and the Sciences.

Two Core courses and an internship are required. Students are encouraged to pursue a variety of courses of study to address diverse Museum situations. Internships

for 6 credits may be done at associated and approved institutions.

Graduate Credits may be applied to an MA in Museum Studies and/or Art History.

Program Requirements (18 credits):

Required Courses: (6 credits)

ARH 5851	Introduction to Museum Ethics, Policies and Procedures	3
ARH 5850	Introduction to Museum Studies: History and Philosophy of Museums	3

Required Internship: (6 credits)

ARH 5940	Internships	6
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Electives: (6 credits)

ARH 5xxx	Collection and Conservation Management and Practices	3
ARH 5xxx	Non-Profit Business Practices	3
ARH 5797	Museum Education	3
ARH 5xxx	Curatorial Methods and Practices	3
ARH 5xxx	Museum Exhibitions: Theory and Practice	3
ARH 5xxx	Special Topics in Museum Studies	3
ARH 5xxx	Managing Museum Technology	3
HIS 5067	Public History Theoretical and Practical Issues	3
HIS 5084	Museum History	3
HIS 5xxx	Archeology and Museum Practices	3
MUM 5808	Grant Writing for the Arts	3
MUM 5946	Performance Arts Internship	3
MUM 5715	Performing Arts Production	3
MUM 5705	Advanced Business of Music	3
ACG 5507	Issues and Problems in Accounting for Non-Profit Entities	3

On occasion, the Program Head may give students permission to include courses from associated departments of History, Environmental Science, Art History; Biology, Architecture, Anthropology.

Course Descriptions

Definition of Prefixes

ARH-Art History; ART-Art; PGY-Photography.

ARH 5325 Graduate Art in Renaissance Florence (3). For study in Florence. Course examines art of Renaissance from its beginnings in Florence with on-site classes. Prerequisite: Graduate standing.

ARH 5362 Baroque Art (3). Baroque art and architecture of the seventeenth and eighteenth centuries in Europe. Slide lectures and discussions, advanced research required.

ARH 5440 Graduate Nineteenth Century Art (3). An advanced survey of 19th-century art in its social, political, and historical context. Includes French, English, Spanish artists. Prerequisite: Graduate standing.

ARH 5465 Modern Art (3). Offers a history of modern art from ca 1880 to 1940. It concentrates on the study of European and American Avant-garde visual art movements with emphasis on art and modern society.

ARH 5482 Graduate Contemporary Art (3). Course examines the visual arts in Europe and the U.S. from the 1960's to the present with focus on major art movements, artists, and artwork. Prerequisite: Graduate standing.

ARH 5663 Graduate Art of Spain and Her Colonies (3). Course explores art of Spain from 1492 through early 19th century, the encounter between Spain and the Americas after the conquest, and the art of the colonies. Graduate level readings.

ARH 5671 Seminar in 20th Century Latin American Art (3). This course will examine the art of the 20th century in Latin America in a seminar focusing on painting and sculpture from the end of the 19th century to the present.

ARH 5675 Graduate History of Cuban Art (3). A study of visual arts of Cuba in the 20th century, within historical, social, and cultural context. Prerequisite: Graduate standing.

ARH 5677 Caribbean Art: Myth and Reality (3). A survey of the contemporary art of the Caribbean with a brief introduction to its early history and a discussion of its complex social structures from country to country.

ARH 5715 History of Photography (3). A chronological examination of the work of the world's most significant photographers from photographic works and ideas from invention to the 1940s.

ARH 5716 History of Photography Since 1945 (3). An examination of the most significant photographic works, critical concepts, and new trends which have arisen since WWII. Prerequisite: ARH 4710.

ARH 5717 History of Photography of Architecture (3). The history of photography from 1839 to now with strong emphasis on the photography of architecture.

ARH 5797 Museum Education (3). Course examines educational functions of a museum including interpretive principles and techniques, program design and community outreach.

ARH 5805 Critical Studies in the Visual Arts (3). Introduction to the methods and concerns of recent art history. Discussion of students' work in context of the contemporary art world. Prerequisites: ARH 4450 and ARH 4470 or graduate level equivalents. Required for MFA Students.

ARH 5845 Graduate Spanish Art (3). Explores the Art of Spain from 1492 through the early 20th century. Painting, sculpture and architecture covered in slide lectures.

ARH 5850 Introduction to Museum Studies: History and Philosophy of Museums (3). Introduces the wide range of topics and issues associated with different types of American museums. Museums are examined as cultural, political, and educational institutions. Prerequisites: Graduate Standing or permission of Director of Museum Studies.

ARH 5851 Museum Ethics, Policies and Procedures (3). The legal, ethical status of museums and the obligation to the public regarding their governance, policymaking and financial planning. Includes theoretical and practical discussions with attention to museums. Prerequisites: Graduate Standing or permission of Director of Museum Studies.

ARH 5852 Museum Registration Methods (3). A course in Museum Registration is designed to provide Museum Studies students with competency in all areas of object care, registration and information management.

Prerequisites: Graduate Standing or permission of Director of Museum Studies.

ARH 5853 Visual Arts Marketing (3). Students seeking a degree in studio art will be able to appraise and present a portfolio to an appropriate organization. Prerequisite: Graduate Standing.

ARH 5872 History of Women Artists (3). Surveys the history of women artists with some discussion of the history of images of women.

ARH 5874C Women in Latin American Art (3). Introduces women in Latin American art from its Pre-Columbian beginnings through the twentieth century. Emphasis will be on painting and sculpture of the twentieth century.

ARH 5896 Seminar in the History and Criticism of Art (3). Examines particular periods or subject areas in the history of art. Course content varies from semester to semester, and with a change in theme, the course may be repeated. Prerequisites: Graduate standing or permission of the instructor.

ARH 5897 Special Topics in Art History (3). Rotating special topics on the graduate level in art history. May be repeated with change of topic. Prerequisites: ARH 4450 and ARH 4470 or graduate level equivalents.

ARH 5907 Directed Studies (1-6). A group of students, with the approval of the art faculty, may select a master teacher of theory, research or criticism in selected areas as film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated.

ARH 5913 Research (1-6). Art history, criticism, and theory in areas not covered by the present program and which the student wishes to study. Prerequisite: Permission of the instructor. May be repeated.

ARH 5940 Internship Experience (3). Supervised work experience in approved institution. Prerequisite: Permission of Director of Museum Studies. May be repeated.

ART 5135C Graduate Fibers (3). Graduate level studio course, explores issues of the fiber medium and its context in contemporary art practice. Prerequisite: Fiber Based Painting ART 5565C.

ART 5159C Jewelry and Metals (3). Advanced jewelry and metalwork. May be repeated. Prerequisites: ART 4156C or equivalent or permission of the instructor.

ART 5390C Drawing (3). Advanced drawing. May be repeated. Prerequisites: ART 4315C or permission of the instructor.

ART 5391C Figure Drawing (3). Advanced figure drawing. May be repeated. Prerequisites: ART 4333C, or equivalent, or permission of the instructor.

ART 5408C Printmaking (3). Advanced printmaking. May be repeated. Prerequisites: ART 4404C or permission of instructor.

ART 5580C Painting (3). Advanced painting. May be repeated. Prerequisites: ART 4524 or permission of instructor.

ART 5685C Advanced Time Art (3). Advanced course to refine students' skills in electronic and digital media production. Students are required to produce a multidisciplinary project. Prerequisites: ART 3681C or permission of the instructor.

ART 5740C Sculpture (3). Advanced sculpture. May be repeated. Prerequisites: ART 4742C or equivalent, or permission of the instructor.

ART 5790C Ceramics (3). The advanced student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisites: ART 4785C or permission of the instructor. May be repeated.

ART 5792C Figure Sculpture (3). Advanced Figure Sculpture. May be repeated. Prerequisites: ART 4716C or permission of instructor.

ART 5815C Graduate Seminar: Body and Art (3). Focuses on the relationship between the body, materials and space as used in art and exhibitions and examines the social conventions that order our understanding of these issues. Prerequisite: Graduate standing.

ART 5844C Installation Art (3). Explores the genre of installation art and site-specific art through history and provides a context for collaboration with the Wolfsonian Museum as both site and subject for art specific installation by students. Prerequisite: Permission of Instructor.

ART 5855 Graduate FIU in New York (3). A study of New York's art world and contemporary artists in New York City.

ART 5907C Directed Study (VAR). A course of study in a selected area under the supervision of an appropriate faculty member. Mandatory for MFA students in semester of graduation. Advance approval by faculty and graduate advisory required (3cr). May be repeated.

ART 5910C Research (1-6). Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. May be repeated.

ART 5930C Special Topics in Studio Art (3). Rotating special topics in Studio Arts. May be repeated with change of content.

ART 5938C Studio Art Pedagogy (1). Instruction in the principles and methods of teaching in the area of visual arts; specifically the application of these principles to the studio situation. Required for MFA students. Prerequisite: Graduate standing.

ART 5939C Graduate Art Seminar I (3). Students will locate and discuss their own work within the context of the contemporary art world. Also, issues and practical concerns for the professional artist will be addressed, such as dealing with guidelines, grant writing and business procedures. Required for MFA students. Prerequisite: Graduate standing.

ART 6939 Graduate Art Seminar II (3). Discussion of students work within the context of the contemporary art world. Issues and practical concerns for the professional artist will be addressed, such as dealing with galleries, grant writing and business procedures. Mandatory for MFA

students. Prerequisites: Graduate standing and ART 5939C.

ART 6971 Graduate Prospectus and Exhibition Preparation (3). Offers students the opportunity to complete the research and preparation of written components required for graduation, including thesis and artist statement. Prerequisites: Completion of graduate program courses other than ART 5907C.

PGY 5530C Color Photography (3). Advanced color photography. (See PGY 4113). Prerequisite: PGY 4113C.

PGY 5425C Photography (3). Advanced photography. May be repeated. Prerequisites: PGY 4113C, or equivalent, or permission of the instructor.

School of Music

Kathleen L. Wilson, *Director and Professor*

Javier Arias, *Instructor, Amernet String Quartet*

John Augenblick, *Associate Professor and Coordinator,
Vocal/Choral Studies*

Kristine H. Burns, *Associate Professor*

Gary Campbell, *Associate Professor*

David Dolata, *Chair and Associate Professor*

Robert Davidovici, *Professor*

Robert B. Dundas, *Associate Professor and Coordinator,
Voice/Opera Studies*

Karen Fuller, *Assistant Professor and Coordinator,
Performing Arts Management*

Joel Galand, *Associate Professor and Director of
Graduate Studies*

Orlando J. Garcia, *Professor and Coordinator, Music
Composition*

Carla Geiger, *Instructor, Marching Band*

Kemal Gekić, *Professor*

Roby George, *Associate Professor and Coordinator,
Wind s, Brass and Percussion Studies*

James Hacker, *Instructor*

William Dan Hardin, *Music Librarian*

Fredrick Kaufman, *Professor Emeritus*

Kathleen Kerstetter, *Assistant Professor, Music
Education*

Michael Klotz, *Instructor, Amernet String Quartet*

Marcia Littlefield de Arias, *Instructor, Amernet String
Quartet*

José López, *Assistant Professor and Coordinator,
Keyboard Studies*

Sam Lussier, *Assistant Professor and Coordinator, Jazz
Studies*

Clair McElfresh, *Professor Emeritus*

Michael Orta, *Associate Professor*

Carlos Riazuelo, *Associate Professor and Coordinator,
String/Orchestral Studies*

Joseph Rohm, *Associate Professor*

Arturo Sandoval, *Professor*

Misha Vitenson, *Instructor, Amernet String Quartet*

Master of Music

The School of Music offers an M.M. degree with specialization in the following areas: music composition, music technology, jazz, applied (winds/percussion, strings, voice, piano, piano accompanying, organ), and conducting (choral, orchestral, wind) and performing arts production. In addition, the school offers the Master of Science in Music Education. For more information please contact the School of Music.

Admissions Requirements

All students entering the graduate programs at the School of Music must possess an undergraduate Bachelor of Music degree from an accredited institution or the equivalent with a 3.0 GPA in the last 60 credits of study. The only exception to this requirement is found in the Performing Arts Production and Music Technology areas where students with undergraduate Bachelors degrees in other related areas may be accepted. In addition, students entering the Master of Science in Music Education must also have teacher certification in music.

An applicant who feels the earned GPA is not indicative of his or her ability to be successful in a graduate degree

program may also submit scores on the Graduate Record Examination which will be taken into consideration by the admission committee in its evaluation of the application; otherwise, the GRE is not required.

- Wind/Percussion Performance: audition on instrument (an interview when feasible) – recordings acceptable
- String/Guitar Performance: audition on instrument (and interview when feasible) – recordings acceptable
- Keyboard/Organ Performance: audition on instrument (and interview when feasible) – recordings acceptable
- Vocal Performance: audition on voice (and interview when feasible) – recordings acceptable
- Conducting (choral, wind, orchestral): conducting audition (and interview when feasible) – video acceptable
- Jazz: audition on instrument (and interview when feasible) – recordings acceptable
- Composition: review of portfolio of scores (and interview when feasible)
- Performing Arts Production: interview required
- Music Education: audition on instrument or conducting audition and interview required
- Music Technology: portfolio of music or software and interview when feasible.

General Requirements

Music Theory (Analytical Techniques course required in all areas except jazz, music technology, music education, and performing arts production)¹

Music History/Literature¹ (see each area for specific courses)

Ensembles/applied/conducting (see each area for specific courses)

The above eight credits are included in the 36 credits required for most areas of concentration.

¹A placement exam is required before students are allowed into these courses. Remedial work may be required before these courses are taken.

A grade of "B" or better must be earned in order for a course to count towards the MM in Music or the MS in Music Education.

Areas of Concentration

I. Composition (36 credit hours)

Composition (3 semesters - 2 credits each)	6
Composers Forum (4 semesters - 1 credit each)	4
Electronic Music 2 semesters (2 credits per semester – beyond MIDI Tech class)	4
MUT 5629 Analytical Techniques	3
Theory Elective: 2 courses to be selected in consultation with the composition area director (3 credits each)	6
Graduate Music Electives	2
MUH 6937 Special Topics in Music History	3
Thesis/Recital (includes private lessons and 45 minute recital of student's compositions during last semester)	6
MUS 5711 Music Bibliography	2

II. Performance

Applied Piano (36 credit hours)

Applied Piano (3 semesters - 3 credits each)	9
Accompanying (2 semesters - 1 credit each)	2
Chamber Music (2 semesters - 1 credit each)	2
Thesis/Recital (includes private lessons and recital during last semester)	6
Analytical Techniques	3

Keyboard Literature I and II (2 semesters – 3 credits each)	6	Elective Ensembles (3 semesters - 1 credit each) (to be chosen in consultation with Director of Vocal Studies)	3
Major Ensemble (2 semesters - 1 credit each)	2	Vocal Pedagogy	2
Piano Pedagogy	2	Opera Literature	3
MUS 5711 Bibliography	2	Vocal Literature (2 semesters – 2 credits each)	4
MUH 6937 Special Topics in Music History	2	Analytical Techniques	3
Piano Accompanying (38 credit hours)		MUH 6937 Special Topics in Music History	1
Applied Piano (3 semesters - 3 credits each)	9	Music Bibliography	2
Instrumental Accompanying	2	Thesis/Recital (includes private lessons and recital during last semester)	6
Vocal Accompanying	2	III. Conducting	
Chamber Music (2 semesters - 1 credit each)	2	Choral (conducting) (36 credit hours)	
Thesis/Recital (includes private lessons and recital during last semester)	6	MUG 5205 Graduate Choral Conducting	6
Analytical Techniques	3	MUG 5935 Conducting Seminar (4 semesters - 1 credit each)	4
2 music literature courses to be chosen in consultation with advisor	6	Choir Ensemble Electives (4 semesters - 1 credit each)	4
MUS 5205 Graduate Review Diction I	2	Thesis/Recital (includes private conducting lessons and recital during last semester)	6
MUS 5206 Graduate Review Diction II	2	Analytical Techniques	3
Major Ensemble (1 semesters - 1 credit each)	1	MUL 5645 Choral Literature	3
MUS 5711 Music Bibliography	2	MUH 6937 Special Topics in Music History	3
MUH 6937 Special Topics in Music History	1	MUS 5711 Music Bibliography	2
Applied Organ (36 credit hours)		Graduate Music Electives	5
Applied Organ (3 semesters – 3 credits each)	9	Instrumental (Wind) Conducting (36 credit hours)	
Accompanying (2 semesters – 1 credit each)	2	MUG 5307 Graduate Applied Instrumental Conducting	6
Organ Pedagogy	2	MUG 5935 Conducting Seminar (4 semesters - 1 credit each)	4
Analytical Techniques	3	Ensemble Electives (4 semesters - 1 credit each)	4
Organ Literature I and II	6	Thesis/Recital (includes private lessons and recital during last semester)	6
Choral Conducting or Instrumental Conducting	2	Analytical Techniques	3
Major Ensemble (2 semesters – 1 credit each)	2	MUL 5456 Wind Instrument Literature	3
MUS 5711 Bibliography	2	MUH 6937 Special Topics in Music History	3
MUH 6937 Special Topics in Music History	2	MUS 5711 Music Bibliography	2
Thesis/Recital (includes private lessons and recital during last semester)	6	Graduate Music Electives	5
Applied Woodwinds, Brass, Percussion (36 credit hours)		Orchestral (conducting) (36 semester hours)	
Applied Instruction (3 semesters - 3 credits each)	9	MUG 6309 Graduate Applied Orchestral Conducting (3 semesters - 2 credits each)	6
Elective Ensembles (from orchestra/wind/brass/percussion ensembles) (6 ensembles - 1 credit each)	6	MUG 5935 Conducting Seminar (4 semesters - 1 credit each)	4
MUN 5465 Chamber Music (2 semesters - 1 credit each)	2	Elective Ensembles (4 semesters – 1 credit each)	4
Thesis/Recital (includes private lessons and recital during last semester)	6	MUS 5906 Thesis/Recital (includes private conducting lessons and recital during last semester)	6
Analytical Techniques	3	MUT 5629 Analytical Techniques	3
MUL 5505 or MUL 5456 Symphonic Literature or Wind Literature	3	MUL 5505 Symphonic Literature	3
Graduate Music Electives	2	MUH 6937 Special Topics in Music History	3
MUH 6937 Special Topics in Music History	3	MUS 5711 Music Bibliography	2
MUS 5711 Music Bibliography	2	Graduate Music Electives	5
Applied Strings (36 credit hours)		IV. Jazz Performance (42 credit hours)	
Applied Strings (3 semesters - 3 credits each)	9	Applied Music (major instrument) (3 semesters - 3 credits each)	9
MUN 5215 Orchestra (4 semesters - 1 credit each)	4	Ensembles (from Studio Jazz Band/Combo/Latin Jazz Ensemble) (4 semesters - 1 credit each)	4
MUN 5465 Chamber Music Elective (4 semesters - 1 credit each)	4	MVJ 5150 Jazz Piano Techniques (2 semesters - 1 credit each; not required of Jazz Piano principals who take 2 credits of Classical Piano instead)	2
Thesis/Recital (includes private lessons and recital during last semester)	6	MUS 5711 Music Bibliography	2
MUT 5629 Analytical Techniques	3	MUT 5629 Analytical Techniques ¹	3
MUL 5505 Symphonic Literature	3	Music Technology Elective (from Electronic Music I-III)	2
MUH 6937 Special Topics in Music History	3	MUT 5646, MUT 5647 Advanced Jazz Techniques I and II 4	4
MUS 5711 Music Bibliography	2		
Graduate Music Electives	2		
Applied Voice (37 credit hours)			
Applied Voice (3 semesters - 3 credits each)	9		
Opera Workshop (4 semesters, 1 credit each)	4		

¹ May substitute MUT 5051 Graduate Theory Survey

MUT 5486	Advanced Jazz Rehearsal Techniques	2
MUT 5746	Jazz Pedagogy	2
MUH 6937	Special Topics in Music History ²	3
MUT 5355	Advanced Jazz Arranging/Composition	2
Thesis/Recital (includes private lessons and recital during last semester)		6

V. Performing Arts Production (42 credit hours)

MUS 5715	Performing Arts Production I	2
MUS 5725	Live Music Operations I	2
TPA 5025	Performance Lighting	2
MUS 5655	Expanding Artistic Expression	2
MUS 5795	Music Production Lab	1
MUS 5726	Live Music Operations II	3
MUS 5512	Sound Reinforcement	2
MUM 5809	Music Production Seminar	3
MUS 5796	Music Production Lab II	1
MUS 5705	Advanced Business of Music*	3
MUM 5808	Grant Writing for the Arts	2
MUS 5906	Thesis	6
MUS 5797	Music Production Lab III	1
MUS 5905	Performing Arts Internship	9
MUS 5711	Music Bibliography	2
MUH 6937	Special Topics in Music History	1

*prerequisite MUM 4301 or equivalent

VI. Music Technology (36 credit hours)

MUC 6405	Electronic Music Lab III	2
MUC 5406	Electronic Music IV	2
MUC 5635	Computer Music Seminar I	3
MUC 5636	Computer Music Seminar II	3
MUS 5711	Music Bibliography	2
MUS 5512	Sound Reinforcement	2
PHY 5466	Physics of Music	3
MUT 5629	Analytical Techniques ³	3
MUH 6937	Special Topics in Music History	1
MUS 5971	Thesis	6
MUM 5946	Performing Arts Internship	9

Master of Science in Music Education**Degree hours: (36)****Professional Education (6)**

EDF 6608	Social, Philosophical and Historical Foundations of Education	3
EDF 6211	Psychological Foundations of Education	3

Music Education (9)

MUE 6938	Seminar in Music Education	3
MUE 6815	Psychological Foundations of Music Behavior	3
MUE 6785	Research in Music Education	3

Music Courses/Common Core (9)

MUT 5629	Analytical Techniques	3
MUS 5711	Music Bibliography	2
Music History		3
Ensembles/Lessons/Conducting		1
Electives/Cognate		6
Thesis		6

Course Descriptions**Definition of Prefixes**

HUM-Humanities; MUC-Music: Composition; MUE-Music:

² May substitute MUH 5815 Jazz History: The Innovators³ May substitute MUT 5051 Graduate Theory Survey

Education; MUG-Music: Conducting; MUH-Music: History/Musicology; MUL-Music: Literature; MUM-Music: Commercial; MUN-Music: Ensembles; MUS-Music; MUT-Music: Theory; MVB-Applied Music/Brass; MVK-Applied Music-Keyboards; MVJ-Applied Music/Jazz; MVP-Applied Music/Percussion; MVS-Applied Music/Strings; MVV-Applied Music/Voice; MVW-Applied Music/Woodwinds.

MUC 5406 Electronic Music IV (2). An advanced course in computer music providing students hands-on experience with recently developed hardware and software for the creation of music. Prerequisite: MUC 4400.

MUC 5407 Electronic Music V (2). Students develop new hardware and/or software for uses related to musical composition. Prerequisite: MUC 5406.

MUC 5635 Computer Music Seminar I (3). Introduces students to the historical contributions of computer music composers and engineers. Prerequisites: MUC 6305, MUC 6306. Corequisite: MUC 6405.

MUC 5636 Computer Music Seminar II (3). Introduces students to the compositional procedures used by computer music composers. Prerequisites: MUC 6305, MUC 6306, MUC 6405. Corequisite: MUC 5406.

MUC 5637 Computer Music Seminar III (3). Introduces students to the research technologies for making interactive sound projects including installations and exhibits. Prerequisites: MUC 6305, MUC 6306, MUC 6405, MUC 5406.

MUC 5935 Composition Forum (1). Student composers present their work for critique by faculty and topics relevant to composition are presented by faculty and guests. Prerequisite: Admission into the graduate composition program.

MUC 6251 Graduate Music Composition (1-3). The writing of evolved musical compositions with regard to each student's strengths and aesthetic development. Graduate standing in Music Composition and or permission of the instructor.

MUC 6305 Electronic Music Lab I (2). Exploration of the electronic medium including the history of electronic music, digital studio techniques, analog studio techniques, digital synthesis and analog synthesis. Prerequisites: MUC 5345 or permission of the instructor.

MUC 6306 Electronic Music Lab II (2). Continuation of Electronic Music Lab I with an emphasis on advanced MIDI applications including sampling, digital sequencing, digital signal processing and interactive MIDI software. Includes one large composition project. Prerequisite: MUC 6305.

MUC 6405 Electronic Music Lab III (2). Special projects in advanced electronic music programming environments including Csound, MAX, Interactor, HMSL and CHANT. Includes one large composition project. Can be repeated 4 times. Prerequisite: MUC 6305.

MUE 5485 Marching Band Techniques (3). A study of show design and concepts; marching band management and organizational procedures including booster organizations, inventory, handbooks, grading procedures, rehearsal techniques. Prerequisite: Permission of the instructor.

MUE 5921 Choral Conducting Workshop (3). The study of various topics related to choral literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5922 String Workshop (3). The study of various topics related to string literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5923 Instrumental Conducting Workshop (3). The study of various topics related to instrumental ensemble literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5924 Jazz Workshop (3). The study of various topics related to jazz literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5928 Workshop in Music (3). Applications of materials and techniques in music in a laboratory or field setting.

MUE 6971 Thesis in Music Education (1-3). Research and paper for Masters Candidates in Music Education. Prerequisites: MUE 6785 and permission of Graduate Advisor in Music Education.

MUG 5105 Advanced Conducting Techniques (1). An extension of form and analysis, with interpretation both in instrumental and choral conducting. Twentieth century scoring and symbol interpretation will be studied in depth, with actual conducting experience required.

MUG 5205 Graduate Applied Choral Conducting (2). Advanced study of choral conducting, including gesture, rehearsal techniques, and repertoire. Prerequisites: Graduate standing and permission of the instructor.

MUG 5307 Graduate Applied Instrumental Conducting (2). Advanced study of wind conducting, including gesture, rehearsal techniques, and repertoire. Prerequisites: Graduate standing and permission of the instructor.

MUG 5935 Conducting Seminar (1). An examination of the principal issues of conducting, emphasizing score reading and study, rehearsal, interpretation, and contemporary techniques. Prerequisites: Graduate standing and/or permission of the instructor.

MUG 6309 Graduate Applied Orchestral Conducting (2). Advanced study of orchestral conducting, including gesture, rehearsal techniques and repertoire. Prerequisites: Graduate standing or permission of the instructor.

MUH 5025 History of Popular Music in the U.S. (3). Overview of Afro-American and Euro-American popular music and its historical development. Examination of musical style and social context in lecture-discussion format with film and video.

MUH 5057 Music of the World (3). Survey of folk, popular and classical musical traditions from around the world. Examination of musical style and social context with film and performance demonstrations.

MUH 5065 Latino Music in the United States (3). Survey of Latin American musical traditions brought through immigration. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 5066 Music of Mexico and Central America (3). A survey of folk, popular and classical musical traditions in the region. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 5067 Music of the Caribbean (3). Survey of folk, popular and classical musical traditions and their ongoing connection with Caribbean populations in the U.S. Class includes film and performance demonstrations.

MUH 5345 Musical Style and Practice in the Baroque Era (3). Detailed treatment of the genres, styles, and composers of the Baroque period within the wider context of Baroque aesthetics and culture. Exploration and application of Baroque performance practice.

MUH 5546 Music of the Americas (3). An exploration of the folk, popular, and art music of Latin America.

MUH 5575 Survey of Asian Music (3). Examines the major Asian musical traditions within the cultural framework of history, arts and traditions.

MUH 5685 Graduate Music History Review I (1-3). Examination of music history achievements from antiquity through the renaissance. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5686 Graduate Music History Review II (1-3). Examination of music history achievements of the Baroque and Classical eras. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5687 Graduate Music History Review III (1-3). Examination of music history achievements from the Romantic era to the present. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5688 Graduate Music History Review IV (1-3). The fourth semester of the music history sequence covers the history of music from 1945 to the present, and includes the detailed study of its literature through critical listening and analysis. Prerequisite: Music majors.

MUH 5815 Jazz History: The Innovators (2). The work of four artists whose innovations have profoundly defined the jazz idiom from its beginning through the present day-Duke Ellington, Charlie Parker, Miles Davis, and John Coltrane.

MUH 6937 Special Topics in Music History (1-3). Graduate seminar with rotating topics, each one focusing on a narrow historical era, geographical area, or subject related to the history of music and its performance. Prerequisite: Permission of the instructor.

MUL 5405 Keyboard Literature I (3). Study of solo works for the keyboard from historical beginnings to 1828. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works.

MUL 5406 Keyboard Literature II (3). Study of solo works for the keyboard from 1828 to the present. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works. Prerequisite: MUL 5405

MUL 5456 Wind Instrument Literature (3). The history and development of Wind Instrument Literature from ca. 1650 to the present day. Music appropriate for all levels of instruction from middle school through college level is included. Prerequisites: Graduate standing in Music and permission of instructor.

MUL 5495 Survey of Organ Literature (3). Survey of organ literature, history, performance practice and organ design. Includes historic sound recordings and in-class performance. Prerequisites: Graduate standing in Music and permission of instructor.

MUL 5496 Organ Literature I (3). Survey of organ literature from antiquity to 1750 in the German, French, Italian schools.

MUL 5497 Organ Literature II (3). Survey of organ literature from 1750 to the present in the German, French, and American schools.

MUL 5505 Symphonic Literature (3). The study of the symphony and the symphonic tone poem from its origin in the Baroque period to the twentieth century. Prerequisites: Graduate standing in Music and permission of instructor.

MUL 5607 Vocal Literature I (2). A survey of solo vocal literature from the 17th century to the late 18th century. Emphasis will be placed on a discussion of ornamentation and performance-practice and comparisons of editions. Prerequisites: Graduate standing in Music and permission of instructor.

MUL 5609 Survey of Art Song Literature (3). An historical survey of the literature for solo voice from the medieval period to the national schools of the contemporary era.

MUL 5624 Vocal Literature II (2). The German Lied and its poetry. Emphasis will be placed on a study of the poets and their poetry, important facts of the composers' lives and times and other musical and cultural developments. Prerequisite: Graduate Standing.

MUL 5625 Vocal Literature III (2). The French Melodie. Emphasis will be placed on a study of the poets and their poetry, their styles and schools, the composers' lives and times and other musical and cultural developments. Prerequisite: Graduate Standing.

MUL 5626 Vocal Literature IV (2). Twentieth-century art song. Emphasis will be placed on the rise of the nationalist schools, the development of atonalism and other modern schools of thought. Prerequisites: Graduate standing in Music and permission of instructor.

MUL 5645 Choral Literature (3). A survey of sacred and secular choral literature from the Middle Ages to the present. Emphasis on stylistic analysis and performance practice for each style period. Includes score study, aural analysis of recorded performances and in-class performances. Prerequisites: Graduate standing in Music and permission of instructor.

MUL 5671 Opera Literature (3). A chronological survey of operatic literature from the 17th century to the present day. Emphasis placed on the historical milieu in which the operatic form evolved through the ages. Prerequisites: Graduate standing in Music and permission of instructor.

MUM 5705 Advanced Business of Music (3). Topics include strategic planning, employee development, and decision making. Also includes a study of publishing, collection agencies, creative unions, and contracts with composers and publishers. Prerequisites: MUM 4301 and permission of graduate advisor.

MUM 5715 Performing Arts Production I (2). Focus on the various aspects of performing arts production. Students attend performances of every possible genre of performing arts and critique the production and the venue. Prerequisite: Permission of graduate advisor.

MUM 5725 Live Music Operations I (2). How promoters and producers project a profit margin and the ability to oversee a profit; considering overhead, scheduling, accommodations, concessions, sound and light. Prerequisite: Permission of the graduate advisor.

MUM 5726 Live Music Operations II (3). Continuation of MUM 5725, Live Music Operations I. Emphasis on promoters', producers', and managers' ability to project a profit margin. An on-campus production is required as the final project. Prerequisites: MUM 5725 and permission of the graduate advisor.

MUM 5795 Music Production Laboratory I (1). Students are assigned to work in the production of 10-15 individual concert productions. The productions are varied and provide the students the opportunity to put in practice work learned in the classroom. Prerequisite: Permission of the graduate advisor.

MUM 5796 Music Production Laboratory II (1). A continuation of Music Production Lab I. Students are assigned to work in the production of 10-15 individual concert productions. Prerequisites: MUM 5795 and permission of the graduate advisor.

MUM 5797 Music Production Laboratory III (1). A continuation of Music Production Lab II. Students are assigned to work in the production of 10-15 individual concert productions. Prerequisites: MUM 5796 and permission of the graduate advisor.

MUM 5808 Grant Writing for the Arts (2). Designed to familiarize the student with the tools and techniques in writing a successful grant proposal. Focuses on the perspective of the arts manager/administrator in relations to grant writing and grant management.

MUM 5809 Music Production Seminar (3). Explores issues and practical applications in the management of music centers, arts organizations and arts centers. Includes examination of local arts centers, local arts councils, music venues, performing arts venues, arts organization and arts service organizations. Prerequisites: Graduate standing or permission of instructor.

MUM 5946 Performance Arts Internship (9). Interns assist and/or observe in all job functions and duties at an entertainment venue. Areas include: production management; design services; technical production; talent

booking and casting; and creative show development. Prerequisite: Permission of graduate advisor.

MUN 5105 Golden Panther Band (1). A study and performance of pop, jazz, and rock musical selections for the instrumental medium. Students will demonstrate what they have learned by performing and through individualized playing examinations. Prerequisite: Permission of the instructor.

MUN 5125 Symphony Band (1). Concert Band ensemble for music majors on secondary instruments and non-music majors. Various types of concert band literature covered from differing grade levels. Course open to anyone who has previous experience playing a wind or percussion instrument.

MUN 5145 Symphonic Wind Ensemble (1). Readings and performances of wind ensemble music from the 18th century to the present. Open to wind and percussion instrumentalists. Prerequisite: Permission of conductor.

MUN 5215 Orchestra (1). An instrumental ensemble performing works from the symphonic repertory. Prerequisites: Previous experience and permission of conductor.

MUN 5245 String Ensemble (1). Performance of orchestra literature for large string ensembles. Prerequisite: Permission of instructor.

MUN 5315 Concert Choir (1). A choral ensemble performing music written and arranged for mixed voices. Prerequisite: Permission of the instructor.

MUN 5325 Women's Chorus (1). A choral ensemble performing music written or arranged for women's voices. Prerequisite: Permission of the instructor.

MUN 5335 Men's Chorus (1). A choral ensemble performing music written or arranged for men's voices. Prerequisite: Permission of the instructor.

MUN 5345 University Chorale (1). A mixed choir performing repertoire from Renaissance to Modern, as well as multicultural works. Prerequisite: Permission of conductor.

MUN 5385 Master Chorale (1). A chorus performing a repertoire primarily from great choral works. Large orchestral accompaniment as well as various instrumental ensembles will be utilized. Prerequisite: Permission of conductor.

MUN 5435 University Brass Choir (1). A study and performance of literature written for the brass medium (trumpet, horn, trombone, euphonium, and tuba) from the pre-baroque, baroque, classical, romantic and contemporary periods. May be repeated. Prerequisite: Permission of the instructor.

MUN 5445 Percussion Ensemble (1). A study and performance of music literature characteristic of the percussion ensemble. Prerequisite: Permission of the instructor.

MUN 5455 Piano Ensemble (1). The presentation and performance of music literature characteristic of piano and pianos in ensemble.

MUN 5465 Chamber Music (1). Small ensemble in the performing of chamber music literature. Prerequisite: Permission of conductor.

MUN 5477 Collegium Musicum (1). Collegium musicum provides a forum for the study and performance of the musical literature of the Medieval, Renaissance, and Baroque eras. Participation in the composition of program notes and rehearsal direction are additional components. Prerequisite: Permission of the instructor.

MUN 5485 Guitar Ensemble (1). The presentation and performance of music literature characteristic of the Guitar Ensemble. Prerequisite: Permission of conductor.

MUN 5496 New Music Ensemble (1). A chamber group of varying instrumentation and size performing art music from the 20th century with emphasis on music from the past 20 years. Explores electronics, multimedia works, etc. Prerequisite: Permission of the instructor.

MUN 5515 Accompanying (1). Accompanying instrumental and vocal students in studio and recital situations.

MUN 5715 Studio Jazz Ensemble (1). An ensemble to provide creative professional-level experience in the contemporary popular idiom. Permission of conductor.

MUN 5716 Jazz Combo Class (1). Harmonic practice, formal procedures, rhythmic and improvisational practices of jazz performance in the small group. Prerequisite: Permission of conductor.

MUN 5785 Jazz Ensemble Rehearsal Techniques (1). An ensemble that provides its members a creative approach to jazz ensemble rehearsal techniques, literature, improvisation and related materials. Prerequisite: Permission of the instructor.

MUN 5826 Latin American Music Ensemble (1). Study and performance of one or more folk and/or popular musical styles from Latin America.

MUO 5505 Opera Workshop (1). The presentation and performance of music literature indigenous to the opera stage. Prerequisite: Permission of director.

MUR 5946 Organ Practicum (2). Study of practical aspects of organ performance as it pertains to employment within a sacred chamber music setting.

MUS 5205 Graduate Review Diction I (2). To review the rules and methods of correct pronunciation of Italian, French and Latin lyric diction as applied to singing opera, oratorio and art song.

MUS 5206 Graduate Review Diction II (2). A review of the rules and methods for proper enunciation of English, German and Spanish language in the performance of classical vocal music.

MUS 5345 MIDI Technology (2). Introduction to MIDI technology including sequencing, notation, patch editing and a variety of other applications. Prerequisites: Graduate standing in Music and permission of instructor.

MUS 5512 Sound Reinforcement (2). Exploration of live music on location, dealing with commonly encountered acoustical problems and how to overcome them. Prerequisite: Permission of the graduate advisor.

MUS 5655 Expanding Artistic Expression (2). Focuses on expanding the horizons of the artistic vision of the student. Accomplished through a series of projects. Prerequisite: Permission of the graduate advisor.

MUS 5711 Music Bibliography (2). Library research methods and materials; documentation of research results in bibliographic style. Develops critical thinking and evaluative skills regarding sources of information, print and online. Prerequisites: Graduate standing in Music and permission of instructor.

MUS 5905 Directed Study (VAR). Designed to provide areas of exploration and specialization beyond the basic selected study programs, such as electronic music, religious music literature, sound techniques, etc. Prerequisite: Permission of the instructor.

MUS 5906 Thesis/Recital (1-6). For students working on a thesis or recital for Master in Music. To be completed under the supervision of a faculty member. Prerequisites: Graduate standing and permission of instructor.

MUS 5910 Research (VAR). Research composition or performance projects, under the guidance and direction of the music faculty. (May be repeated). Prerequisite: Permission of the instructor.

MUS 5971 Thesis (1-6). Research and/or performances towards completion of master's thesis work. Prerequisites: Graduate standing and permission of instructor.

MUS 6658 Experimental Music and Arts (3). The course covers the history of interdisciplinary art created in the 20th century while giving students from different areas the opportunity to create interdisciplinary works.

MUT 5051 Graduate Theory Survey (1-3). Analytical, theoretical and aural skills required for successful graduate studies in music. Prerequisites: Graduate standing in Music and permission of instructor.

MUT 5152 Comprehensive Musical Systems (3). Examination of various comprehensive theoretical systems utilized in the analysis of music. Prerequisites: Graduate standing in Music and permission of instructor.

MUT 5316 Advanced Orchestration (3). Examination of orchestral techniques utilized by composers from the Baroque era through current times. Prerequisites: Graduate standing in Music and permission of instructor.

MUT 5355 Advanced Jazz Arranging and Composition (2). Scores and recordings of various sized jazz ensembles are studied for technique and style. Students compositions and arrangements are performed. Topics include: forms, voicing techniques, instrumentation-live performance vs. recording session. Prerequisites: MUT 4353; MUT 4663; MUT 4664.

MUT 5381 Arranging (3). A course in practical arranging for the public school teacher, including choral, band, and popular arranging. Prerequisites: MUT 2117 and MUT 2227.

MUT 5411 Modal Counterpoint (3). Develop skills necessary to write in the Renaissance style and to analyze the masterworks of Palestrina, Lassus, Victoria, and others. Prerequisites: Graduate standing in Music and permission of instructor.

MUT 5486 Advanced Jazz Rehearsal Techniques (2). Study and practical application of complete preparation, programming, and rehearsing of small and large jazz ensembles. Students study scores and recordings of various jazz styles and rehearse school's ensembles. Prerequisites: MUN 4784; MUT 4643; MUT 4663; MUT 4664.

MUT 5585 Musical Styles Through Strict Composition (3). This course is designed to develop basic compositional skills for writing works in all forms. Prerequisites: Graduate standing in Music and permission of instructor.

MUT 5627 Schenkerian Analysis (3). Advanced studies in Schenkerian analysis of tonal music. Prerequisites: Graduate standing in Music and permission of instructor.

MUT 5628 Atonal Analysis (3). Advanced studies in set theory and serial techniques of twentieth-century music. Prerequisites: Graduate standing in Music and permission of instructor.

MUT 5629 Analytical Techniques (3). Examination and practice of various techniques utilized in the analysis of art music from the common practice period through the 20th century. Prerequisites: Graduate standing in Music and permission of instructor. Placement tests required.

MUT 5646 Advanced Jazz Techniques I (2). A comprehensive, theoretical study of topics related to jazz performance. Includes the nature of improvisation, advanced jazz harmony, theory of jazz improvisation, transcribing and analyzing solos of jazz masters. Prerequisite: MUT 4643.

MUT 5647 Advanced Jazz Techniques II (2). A continuing study of topics related to jazz performance. Includes analyzing solos of jazz masters, development of repertoire, style, and aesthetic concepts. Prerequisite: Advanced Jazz Techniques I.

MUT 5746 Jazz Pedagogy (2). Materials, techniques, and philosophies related to teaching jazz. Includes preparation of courses, course outline and syllabi, lesson plans, lectures. Texts and other resources such as videos, recordings, periodicals, are examined. Prerequisites: MUT 4663; MUT 5355.

MUT 5930 Special Topics (3). Examination of composers, compositional schools, or other areas of specialization and/or interest to the theory/composition faculty. Prerequisites: Graduate standing in Music and permission of instructor.

MVB 5251 Secondary Applied Trumpet (1). Individual instruction in applied music on trumpet as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 5252 Secondary Applied French Horn (1). Individual instruction in applied music on French horn as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 5253 Secondary Applied Trombone (1). Individual instruction in applied music on trombone as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 5254 Secondary Applied Baritone Horn (1). Individual instruction in applied music on baritone horn as

a secondary instrument. Prerequisite: Permission of the instructor.

MVB 5255 Secondary Applied Tuba (1). Individual instruction in applied music on tuba as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 5351 Principal Applied Trumpet (1-2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVB 5352 Principal Applied French Horn (1-2). Individual instruction in applied music on French horn as a principal instrument. Music majors only.

MVB 5353 Principal Applied Trombone (1-2). Individual instruction in applied music on applied trombone as a principal instrument. Music majors only.

MVB 5354 Principal Applied Baritone Horn (1-2). Individual instruction in applied music on baritone horn as a principal instrument. Music majors only.

MVB 5355 Applied Tuba (1-2). Individual instruction in applied music on tuba as a principal instrument. Music majors only.

MVB 5451 Major Applied Trumpet (3). Individual instruction in applied music on trumpet as a major instrument. Music majors only.

MVB 5452 Major Applied French Horn (3). Individual instruction in applied music on French horn as a major instrument. Music majors only.

MVB 5453 Major Applied Trombone (3). Individual instruction in applied music on trombone as a major instrument. Music majors only.

MVB 5454 Major Applied Baritone Horn (3). Individual instruction in applied music on baritone horn as a major instrument. Music majors only.

MVB 5455 Major Applied Tuba (3). Individual instruction in applied music on tuba as a major instrument. Music majors only.

MVJ 5150 Jazz Piano Techniques (1). Performance of basic jazz standards. Includes basic techniques of the instrument, chord voicing, comping, lead sheet realization for non-pianists. Prerequisites: Graduate standing or permission of the instructor.

MVJ 5250 Secondary Jazz Piano (1). Individual instruction in applied jazz music on piano. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5253 Secondary Jazz Guitar (1). Individual instruction in applied jazz music on guitar. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5254 Secondary Jazz Bass (1). Individual instruction in applied jazz music on bass. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5255 Secondary Jazz Flute (1). Individual instruction in applied jazz music on flute. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5256 Secondary Jazz Saxophone (1). Individual instruction in applied jazz music on saxophone. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5257 Secondary Jazz Trumpet (1). Individual instruction in applied jazz music on trumpet. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5258 Secondary Jazz Trombone (1). Individual instruction in applied jazz music on trombone. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5259 Secondary Latin Jazz Percussion (1). Individual instruction in applied jazz music on percussion. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 5350 Principal Applied Jazz: Keyboard (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5353 Principal Applied Jazz Guitar (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5354 Principal Applied Jazz: Bass (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz. Prerequisite: MVJ 4344.

MVJ 5355 Principal Applied Jazz: Flute (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5356 Principal Applied Jazz: Saxophone (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5357 Principal Applied Jazz: Trumpet (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5358 Principal Applied Jazz: Trombone (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5359 Principal Applied Jazz: Percussion (3). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5453 Major Applied Jazz: Guitar (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz

styles, and other performance practices that are particularly relevant to jazz. Prerequisite: MVJ 4343.

MVJ 5454 Major Applied Jazz Bass (3). Individual instruction on major instrument, focusing on the jazz idiom. An in-depth study of overall instrumental technique, eminent styles, and other performance practices that are particularly relevant to jazz and commercial performance. Prerequisite: Music Majors Only

MVJ 5456 Major Applied Jazz Saxophone (3). Individual instruction on major instrument. An in-depth study of overall instrumental technique, styles, and other performance practices particularly relevant to jazz. Prerequisite: Audition.

MVJ 5457 Major Applied Jazz Trumpet (3). Individual instruction in applied music on jazz trumpet at a major level. Prerequisite: Music majors only.

MVJ 5458 Major Applied Jazz Trombone (2). Individual instruction in applied music on jazz trombone at a major level. Prerequisite: Music majors only.

MVJ 5459 Major Applied Jazz Latin Percussion (3). Individual instruction in applied music on jazz percussion as a major instrument. Prerequisite: Music majors only

MVK 5251 Secondary Applied Piano (1). Individual instruction in applied music on piano as a secondary instrument. Prerequisite: Permission of the instructor.

MVK 5253 Secondary Applied Organ (1). Individual instruction in applied music on organ as a secondary instrument. Prerequisite: Permission of the instructor.

MVK 5351 Principal Applied Piano (1-2). Individual instruction in applied music on piano as a principal instrument. Music majors only.

MVK 5353 Principal Applied Organ (1-2). Individual instruction in applied music on organ as a principal instrument. Music majors only.

MVK 5451 Major Applied Piano (3). Individual instruction in applied music on piano as a major instrument. Music majors only

MVK 5453 Major Applied Organ (3). Individual instruction in applied music on organ as a major instrument. Music majors only.

MVK 5605 Organ Pedagogy (2). An overview of historical and modern organ methods, pedagogies and supporting material.

MVK 5651 Piano Pedagogy (2). Survey of current piano teaching methods.

MVO 5651 Graduate Pedagogy (1). The development of teaching skills required by graduate assistants, including classroom skills, designing examinations, etc. Prerequisite: Graduate Assistants.

MVP 5251 Secondary Applied Percussion (1). Individual instruction in applied music on percussion as a secondary instrument. Prerequisite: Permission of the instructor.

MVP 5351 Principal Applied Percussion (1-2). Individual instruction in applied music on percussion as a principal instrument. Music majors only.

MVP 5451 Major Applied Percussion (3). Individual instruction in applied music on percussion as a major instrument. Music majors only.

MVS 5251 Secondary Applied Violin (1). Individual instruction in applied music on violin as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 5252 Secondary Applied Viola (1). Individual instruction in applied music on viola as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 5253 Secondary Applied Cello (1). Individual instruction in applied music on cello as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 5254 Secondary Applied Double Bass (1). Individual instruction in applied music on double bass as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 5255 Secondary Applied Harp (1). Individual instruction in applied music on harp as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 5256 Secondary Applied Guitar (1). Individual instruction in applied music on guitar as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 5351 Principal Applied Violin (1-2). Individual instruction in applied music on violin as a principal instrument. Music majors only.

MVS 5352 Principal Applied Viola (1-2). Individual instruction in applied music on viola as a principal instrument. Music majors only.

MVS 5353 Principal Applied Cello (1-2). Individual instruction in applied music on cello as a principal instrument. Music majors only.

MVS 5354 Principal Applied Double Bass (1-2). Individual instruction in applied music on double bass as a principal instrument. Music majors only.

MVS 5355 Principal Applied Harp (1-2). Individual instruction in applied music on harp as a principal instrument. Music majors only.

MVS 5356 Principal Applied Guitar (1-2). Individual instruction in applied music on guitar as a principal instrument. Music majors only.

MVS 5451 Major Applied Violin (3). Individual instruction in applied music on violin as a major instrument. Music majors only.

MVS 5452 Major Applied Viola (3). Individual instruction in applied music on viola as a major instrument. Music majors only.

MVS 5453 Major Applied Cello (3). Individual instruction in applied music on cello as a major instrument. Music majors only.

MVS 5454 Major Applied Double Bass (3). Individual instruction in applied music on double bass as a major instrument. Music majors only.

MVS 5455 Major Applied Harp (3). Individual instruction in applied music on harp as a major instrument. Music majors only.

MVS 5456 Major Applied Guitar (3). Individual instruction in applied music on guitar as a major instrument. Music majors only.

MVV 5251 Secondary Voice (1). Individual instruction in applied music on voice as a secondary instrument. Prerequisite: Permission of the instructor.

MVV 5351 Principal Applied Voice (1-2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVV 5451 Major Applied Voice (3). Individual instruction in applied music on voice as a major instrument. Music majors only.

MVV 5651 Graduate Vocal Pedagogy I (2). An introduction to the history and development of vocal pedagogy for the graduate voice major. Emphasis will be placed on a study of the anatomy and acoustics of the human voice.

MVV 5652 Graduate Vocal Pedagogy II (2). Practical application of the principles of vocal technique in the studio. Emphasis will be placed on the psychological factors which apply to singing and the teaching of singing. Prerequisite: Graduate Vocal Pedagogy I.

MVW 5251 Secondary Applied Flute (1). Individual instruction in applied music on flute as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 5252 Secondary Applied Oboe (1). Individual instruction in applied music on oboe as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 5253 Secondary Applied Clarinet (1). Individual instruction in applied music on clarinet as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 5254 Secondary Applied Bassoon (1). Individual instruction in applied music on bassoon as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 5255 Secondary Applied Saxophone (1). Individual instruction in applied music on saxophone as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 5351 Principal Applied Flute (1-2). Individual instruction in applied music on flute as a principal instrument. Music majors only.

MVW 5352 Principal Applied Oboe (1-2). Individual instruction in applied music on oboe as a principal instrument. Music majors only.

MVW 5353 Principal Applied Clarinet (1-2). Individual instruction in applied music on clarinet as a principal instrument. Music majors only.

MVW 5354 Principal Applied Bassoon (1-2). Individual instruction in applied music on bassoon as a principal instrument. Music majors only.

MVW 5355 Principal Applied Saxophone (1-2). Individual instruction in applied music on saxophone as a principal instrument. Music majors only.

MVW 5451 Major Applied Flute (3). Individual instruction in applied music on flute as a major instrument. Music majors only.

MVW 5452 Major Applied Oboe (3). Individual instruction in applied music on oboe as a major instrument. Music majors only.

MVW 5453 Major Applied Clarinet (3). Individual instruction in applied music on clarinet as a major instrument. Music majors only.

MVW 5454 Major Applied Bassoon (3). Individual instruction in applied music on bassoon as a major instrument. Music majors only.

MVW 5455 Major Applied Saxophone (3). Individual instruction in applied music on saxophone as a major instrument. Music majors only.

THE PATRICIA & PHILLIP FROST ART MUSEUM

Carol Damian, *Interim Director*

Debbye Kirshtel-Taylor, *Registrar and Curator of Collections*

Caroline Parker, *Curator of Education*

The Patricia & Phillip Frost Art Museum on the University Park Campus is an arts resource for the university and surrounding communities in South Florida. Its mission is to enrich and educate diverse audiences through the language of art by collecting, preserving, researching and interpreting a broad range of arts from around the world. The museum is the repository of over 6,000 works of art including the Coral Gables Metropolitan Museum and Art Center Collection, the Oscar B. Cintas Fellows Collection, and the Betty Laird Perry Emerging Artist Collection.

The Patricia & Phillip Frost Art Museum amplifies the impact of its exhibitions with a wide range of regionally unique and nationally recognized educational programs. The Steven & Dorothea Green Critics' Lecture Series and the Latin American & Caribbean Art Lecture Series present South Florida's diverse audiences with programming that includes art world luminaries and renowned artists, critics, curators, designers and scholars. The museum offers event programs such as **Wednesday After-Hours**, which gives visitors the chance to engage with the contemporary and confront the controversial with talks, films, live music and art. The museum also offers guided tours of the current exhibition and the Sculpture Park.

The museum's educational programs are designed to nurture and increase each participant's knowledge of art and honor its mission to serve people of all ages, means and backgrounds, including the culturally diverse FIU community and residents of and visitors to South Florida. The Patricia & Phillip Frost Art Museum develops a significant series of public programs in conjunction with the major exhibitions it borrows and organizes each year.

Additionally, The Patricia & Phillip Frost Art Museum works with Miami-Dade County Public Schools to deliver tours of interdisciplinary training for instructors that reach more than 12,000 teachers and students annually.

In conjunction with the School of Art and Art History, the Graduate Certificate in Museum Studies is an 18-credit program intended to prepare individuals for employment in museums, historic preservation, and collection management. The program offers graduate level courses in various associated academic disciplines with special projects appropriate for specific museum work. Courses are for students interested in museum careers and for people currently employed in museums who want to expand their theoretical base and their knowledge of best professional practices. The program is designed to provide the students with a strong theoretical basis and a broad understanding of museum practice and history. For further information on the program, refer to the School of Art and Art History.

Student and faculty exhibitions are an important component of the museum's academic function and present the work of artists who have gone on to receive state and national recognition, including National Endowment for the Arts, MacArthur Foundation, Guggenheim Fellowship Award and Florida Visual Artist

grants and fellowships. The Betty Laird Perry Emerging Artist Collection was established with work acquired through the Betty Laird Perry Purchase Award, which is granted to selected BFA and MFA students graduating from the FIU programs in visual arts..

College of Architecture and The Arts

Dean **Juan Antonio Bueno**
Associate Dean, Administration **David F. Bergwall**
Associate Dean, Academic Affairs **Kristine H. Burns**

Faculty

Abbott, Phillip, MID (University of Florida), Assistant Professor, Interior Design
Andia, Alfredo, MDes, PhD (University of California-Berkeley), Associate Professor, Architecture
Arias, Javier, Artist Diploma (University of Cincinnati), Instructor, String/Orchestral Studies, Amernet String Quartet
Arpad, Tori, MFA (University of Arizona), Associate Professor, Ceramics
Augenblick, John, DMA (University of Miami), Associate Professor and Coordinator, Vocal/Choral Studies
Belcher, Nathaniel Q., MArch, AIA (Harvard University), Associate Professor, Architecture and Director, School of Architecture
Bergwall, David F., MBA, DBA (George Washington University), Associate Professor and Associate Dean, College of Architecture and The Arts
Brant, Sharon, MFA (University of Wyoming), Assistant Professor, Painting/Drawing
Brown, Joann, MA (University of Miami), Instructor Speech Communication
Buckley, Ralph, MFA (Maryland Institute), Professor, Sculpture
Bueno, Juan Antonio, MLA, ASLA, PE (Harvard University), Professor, Landscape Architecture and Dean, College of Architecture and The Arts
Burke, William, MFA (State University of New York at New Paltz), Professor, Ceramics and Chair, Academic Programs, School of Art and Art History
Burns, Kristine H., DA (Ball State University), Associate Professor, Composition/Music Technology and Associate Dean, College of Architecture and The Arts
Busch, Claudia, MArch (Columbia University), Associate in Design, Architecture
Campbell, Gary, MM (University of Miami), Assistant Professor, Jazz Performance
Canavés, Jaime, MArch, FAIA, IIDA (University of Florida), Professor, Architecture
Canavés, Marta, MLA, ASLA, IIDA (Florida International University), Associate in Design and Chair, Landscape Architecture Department
Chandler, Jason R., MArch, AIA (Harvard University), Assistant Professor, Architecture
Church, Phillip, MFA (University of California-Irvine), Associate Professor, Theatre
Dambach, Kathy, MFA (Ohio State University and Wayne State University), Professor, Art
Damian, Carol, PhD (University of Miami), Professor, Art History and Director, The Patricia and Phillip Frost Art Museum
Davidovic, Robert, Postgraduate Diploma (The Juilliard School), Professor and Artist-in-Residence, String/Orchestral Studies
del Valle, Eduardo, MFA (Brooklyn College, City University of New York), Professor, Photography
Dolata, David, PhD (Case Western Reserve University), Associate Professor, Music Theory/History and Chair,

Academic Programs

Dreikosen, Jesse, MFA (Purdue University), Assistant Professor, Theatre
Drisin, Adam M., MArch (Harvard University), Associate Professor and Chair, Architecture Department
Dundas, Robert, MFA (University of Iowa), Associate Professor, Vocal/Choral Studies
Fuller, Karen, MFA (Florida International University), Assistant Professor and Coordinator, Performing Arts Management
Galand, Joel, PhD (Yale University), Associate Professor, Music Theory/History and Director, Graduate Studies, School of Music
Garcia, Orlando, DMA (University of Miami), Professor and Coordinator, Composition
Geiger, Carla, MM (University of Florida), Instructor, Marching Band
Gekic, Kemal, MA (University of Novi Sad, Yugoslavia), Professor and Artist-in-Residence, Keyboard Studies
George, Jr., Roby, DMA (University of Cincinnati), Associate Professor and Coordinator Wind, Brass and Percussion Studies
Goldenberg, Eric M., MSAAD (Columbia University), Assistant Professor, Architecture
Gómez, Mirta, MFA (Brooklyn College, City University of New York), Professor, Photography
Guernsey, Daniel, PhD (University of Wisconsin-Madison), Associate Professor, Art History
Hacker, James, BA (University of Miami), Instructor, Wind, Brass and Percussion Studies
Hagood, Thomas, PhD (University of Wisconsin-Madison), Associate Professor and Chair, Dance
Hardin, William Dan, DMA (Rochester University), Music Librarian
Karsh, Ellen, MA (Florida International University), Instructor, Speech Communication
Kaufman, Fredrick, MM (Manhattan School of Music), Professor Emeritus and Artist-in-Residence, Composition/Music Technology
King, Clive, ATC, PhD (University of London), Professor, Drawing
King, Janine MID (University of Oregon), Associate Professor and Chair, Interior Design Department
Kirschotel-Taylor, Debbye, MFA (University of Florida), Coordinator, Museum Operations, The Patricia & Phillip Frost Art Museum
Klotz, Michael, MM (The Juilliard School), Instructor, String/Orchestral Studies, Amernet String Quartet
Kolasinski, Jacek, MFA (Florida International University), Assistant Professor, Digital Media
Little de Arias, Marcia, Artist Diploma (University of Cincinnati), Instructor, String/Orchestral Studies, Amernet String Quartet
López-Mata, Gisela, MS (Pratt Institute), Associate Professor, Interior Design Department
López, Jose, DMA (University of Miami), Assistant Professor and Coordinator, Keyboard Studies
Lund, Gary, BFA (Florida International University), Instructor, Dance
Lusher, Stephen, MA (Florida International University), Instructor, Speech Communication
Lussier, Sam, EdD (Florida International University), Assistant Professor and Coordinator, Jazz Performance

Maguire, William, MS (*Illinois Institute of Technology*),
Professor, Photography

Mantell-Seidel, Andrea, DA (*New York University*),
Associate Professor, Dance

Martinez, Juan A., PhD (*Florida State University*),
Professor, Art History and Director, School of Art and
Art History

McElfresh, Clair, DMA (*Case Western Reserve
University*), Professor Emeritus, Vocal/Choral Studies

Nepomechie, Marilys, MArch, FAIA (*Massachusetts
Institute of Technology*), Associate Professor,
Architecture

Orta, Michael, MM (*University of Miami*), Associate
Professor, Jazz Performance

Ozer, Ebru, MLA (*Louisiana State University*), Assistant
Professor, Landscape Architecture

Parker, Caroline, BA (*Florida International University*),
Coordinator, Museum Operations, The Patricia &
Phillip Frost Art Museum

Quintana, Nicolás, NCARB (*Arquitecto Universidad de
La Habana*), Scholar in Architecture and Urbanism,
Architecture

Read, Gray, MArch, PhD, RA (*University of
Pennsylvania*), Associate Professor, Architecture

Riazuelo, Carlos (*Juan Manuel Olivares School,
Venezuela*), Associate Professor and Coordinator,
String/Orchestral Studies

Rifkind, David, MArch, PhD (*Columbia University*),
Assistant Professor, Architecture

Robinson, Wayne, MFA (*National Theatre
Conservatory*), Associate Professor, Theatre

Rohm, Joseph, PhD (*Florida State University*),
Associate Professor, Music Theory

Rosales, Camilo, MArch, RA (*Harvard University*),
Associate Professor, Architecture

Rovira, Roberto, MLA (*Rhode Island School of
Design*), Assistant Professor, Landscape Architecture

Sandoval, Arturo (*Escuela Nacional de Bellas Artes,
Habana, Cuba*), Professor and Artist-in-Residence,
Jazz Performance

Schriner, Brian, MA (*University of Miami*), Instructor,
Speech Communication and Interim Director,
School of Theatre, Dance, and Speech
Communication

Skow, Marilyn, MPh (*Columbia University*), Associate
Professor, Theatre

Soledade, Augusto, MFA (*SUNY-Brockport*), Assistant
Professor, Dance

Steeler, Charles, BFA (*Pacific Northwest College of
Art*), Coordinator, Museum Operations, Frost Art
Museum

Stuart, John A., MArch, AIA (*Columbia University*),
Associate Professor, Architecture

Thomas, Susan, BFA (*Temple University*), Coordinator,
Museum Operations, Frost Art Museum

Timlick, Lesley-Ann, MFA (*University of
California-Davis*), Associate Professor, Theatre

Torres, Manuel, PhD (*University of New Mexico*),
Professor, Art History

Vassigh, Shahin, MArch (*University at Buffalo*),
Associate Professor, Architecture

Vitenson, Michael, MM (*The Julliard School*),
Instructor, String/Orchestral Studies, Amernet String
Quartet

Watson, Kathleen, MA (*University of Miami*), Instructor,
Speech Communication

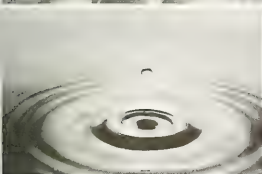
Watts, Barbara, PhD (*University of Virginia*), Associate
Professor, Art History

Wilson, Kathleen, EdD (*Columbia University*),
Professor, Vocal/Choral Studies and Director, School
of Music

Yawney, Michael, MFA (*Columbia University*),
Assistant Professor, Theatre



FLORIDA INTERNATIONAL UNIVERSITY



**COLLEGE OF
ARTS
AND SCIENCES**

College of Arts and Sciences

Dean

Senior Associate Dean for Liberal Arts
Senior Associate Dean for the Sciences
Associate Dean, College Relations
Associate Dean, Biscayne Bay

Kenneth G. Furton

Nicol Rae

Suzanna Rose

Gisela Casines

Campus

Associate Dean, Research and Facilities
Assistant Dean, Advising

Joyce Peterson

Gautam Sen

Kenton Harris

The College of Arts and Sciences furthers the study of fundamental intellectual disciplines and serves the University's other colleges and schools. The College grants Bachelor's, Master's, and Ph.D. degrees. In addition, the College serves students who need to complete general education and core curriculum requirements and other requirements in order to enroll in specific disciplines or professional programs.

The College is composed of 17 departments and several interdisciplinary programs.

Graduate Programs

The College has academic programs leading to Master's degrees in African-New World Studies, Asian Studies, biology, chemistry, comparative sociology, creative writing, economics, English, environmental studies, environmental and urban systems (offered jointly with the College of Engineering and Computing), forensic science, geosciences, history, international studies, Latin American and Caribbean Studies, liberal studies, linguistics, mathematical sciences, physics, political science, psychology, religious studies, Spanish, and statistics.

The College offers academic programs leading to the Ph.D. in biology, chemistry, economics, geosciences, history, international relations, physics, political science, psychology, comparative sociology, and Spanish.

Graduate Admission Requirements

The College's admission requirements as listed below are in addition to the University's graduate admission requirements. These are minimal requirements. Please consult the specific graduate program, which may have different requirements.

1. A 3.0 or higher GPA during the last two years as an upper division student and a minimum total score (quantitative plus verbal) of 1000 on the GRE for the Master's degree. A 3.0 or higher GPA and a GRE verbal and quantitative of 1120 or higher are required for the Ph.D. degree. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the IBT TOEFL or 6.3 overall on the IELTS is required.

2. The GRE or GPA stated above are only minimum requirements. All applications are reviewed by each program's Graduate Studies Admission Committee, which makes the final admissions recommendations. Since admission to the program is competitive, the committee's requirements are normally higher than the minimum aforementioned standards.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's

various publics and to respond to the mandates of the Florida Board of Education, or Board of Governors, and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Interdisciplinary Courses

The College of Arts and Sciences has several interdisciplinary programs which are not based in a specific academic department. The courses offered by these programs, therefore, are not found in the departmental listings in the Catalogs, but are included here.

Social Science Interdisciplinary

ISS 5166 Sustainable Communities Seminar (3). Explores theories and aspects of sustainable communities, and considers the concept in comparative-historical, local-global, and critical perspective. Prerequisite: Permission of the instructor.

ISS 5237 Latin American and Caribbean Cultural Expressions (3). This interdisciplinary course develops an interdisciplinary approach to the study of national, cultural, and racial identities, as expressed in cultural productions of the Latin America and the Caribbean.

ISS 5238 The Imaged Body: The Case of the Americas (3). With a team-taught interdisciplinary approach this course explores how identity, power and hierarchy are invoked and represented through the human body and body movement in the region of the Americas.

African-New World Studies

Faculty

Akin Ogundiran, *Director, African-New World Studies & Associate Professor, History*

Heather Andrade, *Assistant Professor, English*

Pascale Becel, *Chair & Associate Professor, Modern Languages*

Carole Boyce Davies, *Professor of English & African-New World Studies*

Jean-Robert Cadely, *Associate Professor, Modern Languages & African-New World Studies*

John Clark, *Chair & Associate Professor, International Relations*

Elizabeth Cooper, *Assistant Professor, History*

Alexandra Cornelius-Diallo, *Assistant Professor, History and African-New World Studies*

Lisa Delpit, *Eminent Professor, Urban Education*

Mohamed Farouk, *Associate Professor, College of Education*

Janvier Gasana, *Associate Professor, Environmental & Occupational Health*

Veronique Helenon, *Assistant Professor, History and African-New World Studies*

Tometro Hopkins, *Associate Professor, English*

Phillis Kotey, *Clinical Associate Professor, College of Law*

Jeremy Levitt, *Associate Professor, College of Law*

Alexander Lichtenstein, *Associate Professor, History*

Marcia Magnus, *Associate Professor, Dietetics & Nutrition*

Assefa Melesse, *Assistant Professor, Environmental Studies*

Andrea Mantell-Seidel, *Associate Professor, Dance and Director, Intercultural Dance and Music Institute*

Roderick Paul Neumann, *Professor, International Relations*

Vrushali Patil, *Assistant Professor, Sociology/Anthropology & Women's Studies*

Valerie Patterson, *Assistant Professor, College of Health and Urban Affairs*

Joyce Peterson, *Associate Professor, History & Associate Dean, College of Arts and Sciences*

Charles Pouncy, *Associate Professor, College of Law*

Jean Rahier, *Associate Professor, Sociology/Anthropology and African-New World Studies*

Andre Smith, *Assistant Professor, College of Law*

Augusto Soledade, *Assistant Professor, Dance*

Linda Spears-Bunton, *Associate Professor, College of Education*

Dionne Stephens, *Assistant Professor, Psychology & African-New World Studies*

Alex Stepick III, *Professor, Sociology/Anthropology*

Chantalle Verna, *Assistant Professor, History and International Relations*

Carlton Waterhouse, *Assistant Professor, College of Law*

Donna Weir-Soley, *Assistant Professor, English*

Kirsten Wood, *Associate Professor, History*

Albert Wuaku, *Assistant Professor, Religious Studies*

Master of Arts in African-New World Studies

The M.A. in African-New World Studies provides interdisciplinary, graduate level training with three areas of emphasis: 1. Pedagogy of the African Diaspora, 2. National and Transnational Policy Analysis, and 3. Cultural Studies. This M.A. program develops scholars with specific skills, research methodologies, principles, and knowledge which will lead to professional positions in a range of fields as it simultaneously prepares them for further study at the doctoral level. The M.A. in African-New World Studies is international in orientation; as such, its geographic reach is Africa, the Caribbean, North and South America, Europe and Asia. Conceptually, it embraces the African Diaspora. FIU provides one of the few truly international, multidisciplinary M.A. models among African Studies programs, departments and centers nationally. The M. A. in African-New World Studies is organized to develop research interests and models, advance knowledge, and develop interactive and comparative relationships with similar programs which pursue the life, cultural and social formations, economics, education, language, expressive and performing arts, governmental and other institutional systems, of peoples of African descent wherever they exist. The M.A. in African-New World Studies provides students with some specific skills, knowledge and resources to:

1. Work in specific programs and units related to African communities in Africa, Latin America, the Caribbean, the United States, Europe, Asia; international organizations; multi-cultural curriculum development and teaching and other educational contexts; race and social and public policy; journalism and other fields.
2. Prepare students to use and develop theoretical, analytical, and methodological approaches to critical issues such as those pertaining to race and ethnicity in all their manifestations; development and underdevelopment; technology; relations of domination and power; environmental policies; health and wellness; issues of self-determination and mutual cooperation, and all aspects of aesthetic / creative expression.
3. Create new knowledge through research and close study of relevant communities and disseminate this knowledge to the various communities we serve.
4. Understand and confront the unique socioeconomic problems facing communities of Africa and the African Diaspora.
5. Develop skills that incorporate the following theoretical and analytical frameworks into an intellectual, policy, and research agenda: a) "Resistance and Struggle," b) "Nationalities and National/Post National Identities," c) "Migration and Identity/Geographical Repositioning," d) "History, Culture, Performative and Expressive Modes," and e) "Schooling, Pedagogical and Instructional Practices, and Educational Policies," and "Development".

Admission Requirements

Each applicant to the African-New World Studies Graduate Program must complete an online graduate application form and arrange to send transcripts of all prior college (undergraduate and graduate) work and official reports of the Graduate Records Exam (GRE) and TOEFL

(if applicable) to the FIU's Office of Graduate Admissions. Each applicant should also send a separate letter of application to the director of the African-New World Studies Graduate Program, along with copies of the above material. The letter of application should include a statement expressing the applicant's academic and professional objectives and the choice of the applicant for enrolling in either one of the three areas of specialization. Applicants are strongly encouraged to include examples of academic or other relevant professional work that may support their application. Applicants must request two letters of recommendation from professors able to comment on their academic ability. The letters of recommendation should be sent directly to the Director of the African-New World Graduate Program.

The application file must be complete before the African-New World Studies Graduate Committee will consider the applicant for admission. The deadline for receipt of application—including all supporting materials and letters of recommendation—is March 15th. To be admitted into the African-New World Studies Graduate Program a student must meet the University's graduate admission requirements, which can be found in Florida International University's Graduate Catalog and the following minimum standards:

1. Applicants must have a baccalaureate degree from an accredited college or university.
2. Applicants must have an undergraduate grade point average (GPA) of 3.0 or higher and a combined score of 1000 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE). Applicants must submit both grade transcripts and GRE scores for consideration. The student must also have a GPA of 3.5 on any previous graduate work.
3. Applicants should request that two letters of recommendation from individuals able to judge a student's academic potential be sent directly to Graduate Director of African-New World Studies, Florida International University, Academic One-162, 3000 North East 151st Street, North Miami, Florida 33181.
4. Applicants are encouraged to submit examples of written work and other supporting materials.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the IBT TOEFL or 6.3 overall on the IELTS is required.

Financial Aid

Each academic year a limited number of graduate students are hired as graduate assistants. Graduate assistantships are allocated on a competitive basis and typically pay a substantial portion of tuition expenses and provide a stipend. To be considered for an assistantship the applicant must make such a request in writing to the Graduate Program Director. The Graduate Program Committee will make the awarding of teaching assistantships. Students receiving an assistantship are required to perform approximately 20 hours of teaching and research related duties per week and are required to participate in a one-hour seminar related to teaching.

Graduation Requirements

Candidates must obtain a grade of "B" or higher in all courses and achieve a cumulative average of at least 3.0 (based on a 4.0 scale) and present a satisfactory internship (with research paper) or thesis. A Thesis committee or an Internship Research Project committee composed of at least three FIU graduate faculty members will guide the student through successful completion of the thesis or internship (with research paper).

The FIU faculty eligible to serve in a Thesis or Internship Research Project committee are the faculty members who have achieved graduate faculty standing from the office of the Dean of the University Graduate School at FIU. Other non-FIU faculty not identified in that list may be considered to serve on a committee based on research, identified interest, and publications (see the Graduate Director or Director of ANWS) upon approval of the Dean of the University Graduate School.

Before the end of a student's first year in the program, he/she should form a thesis or internship research project committee. This committee will consist of a Chairperson and two additional members. The Committee Chairperson and one other committee member must be Graduate Faculty of the African-New World Studies Program. The remaining committee member will generally be a graduate faculty member at FIU, although with the approval of the Committee Chairperson and the Graduate Director, the third member may come from outside the ANWS Program ("Core Faculty") or University. Internship Research projects as well as Thesis research are usually performed during the first summer of enrollment in the program. Internships Research Projects are options available to students who specialize in any of the three M.A. tracks – Cultural, Pedagogy of the African Diaspora, National and Transnational Policy Analysis. Internships projects are ALWAYS accompanied by a research paper of at least 25 pages.

The thesis will be between 70 and 100 pages. The research paper linked to an internship generally will be between 25 and 50 pages.

A thesis or research paper may be based on secondary or primary sources. In any case it will be based on scholarly sources defined by particular disciplines. While thesis and research papers need not be based on original data collected by the student, they must be rigorous and original. By rigorous, we mean that the thesis/research paper must be tightly argued and logical, well-written and well-organized. By original, we mean that the thesis cannot simply summarize the arguments or work of others. It must have the student's unique interpretation, which should be cogent—given the data under consideration.

Required Credits (for all Specializations)

Three (3) credits [core course], six (6) credits of thesis/research project or internship and twenty-seven (27) credits selected according to one's specialization. (See below for specifics for specialization requirements).

Total: 36 credit hours.

Core Course (For all specializations)

AFA 5002	African-New World Studies: Theory and Methods Graduate Seminar (offered every Fall semester)
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Language Requirement (For all specializations)

Students will be asked to demonstrate proficiency in a language according to the nature of their internship or thesis/research project and professional interests. Credit hours earned in meeting language requirement will not count towards the 36 credit hours required for the degree.

AFA 6920 Graduate Colloquium 1

Students must register for one credit for three consecutive semesters and attend all symposia, conferences, colloquia, and lectures sponsored by the program and write response papers on each event to be submitted to the Program Director.

Specializations**I. Pedagogy of the African Diaspora**

Liaisons – Linda Spears-Bunton, (English Education), College of Education & Mohamed Farouk, (Social Studies Education), College of Education

This specialization addresses the need for multi-cultural education with a specific emphasis on training personnel to be knowledgeable about African and African Diaspora materials. The national and international rise of multi-cultural studies and interests in the area of education makes this program marketable to a range of educational interests. Targeted as well to meet the needs of teacher training in light of the Florida State Legislation (s233.061) which mandates the teaching of African American history across the curriculum, our students will be prepared to play leadership roles in the development of an international consciousness of educational contexts, facilities, curricula, inside and outside of the United States. This specialization will help students teach and develop instructional materials in the area of urban education as well as for other students of different ethnicities; facilitate transmission of pedagogical materials on the African Diaspora; and develop cross and intra-cultural methodologies. Students must display cultural and linguistic fluency. Students in this specialization may participate in an Internship with an appropriate institution/organization that will culminate in a Research Project for 6 credit hours.

Thesis or Internship (6 credit hours)**Required Courses (6 credit hours)**

AFA 5107	Teachers' Institute
AFA 6325	Pedagogy of the African Diaspora: Literacy, Culture, Race & Gender Issues

Students must take three courses (9 credit hours) from the list below based on availability of faculty and courses. Students should consult with the graduate program director since new courses are frequently added and special topic courses sometimes concern the African Diaspora.

EDF 5820	Latin American Education
EDF 5821	African Educational Systems: A Comparative Approach
EDF 5881	Foundations of Bilingual Education
LAE 5465	Adolescent Literature
LAE 5466	Multicultural Perspectives in Language & Literature
LIN 5603	Language Planning: Linguistic Minority Issues
SSE 6394	Social Studies in Other Nations

SSE 6925 Workshop in Social Studies Education

From the list below, students must take three courses (9 credit hours). Students may take no more than one course in one given discipline.

LIT 5359	African Diaspora Women Writers
LIT 5358	Black Literature and Literacy/Cultural Theory
LIN 5934	Pidgins and Creoles
LIT 5487	Major African-American Writers
LIT 6934	Black Literature & Cultural Theory
AFH 5905	Readings in African History
AFH 5935	Topics in African History
INR 5086	Islam in International Relations
INR 5255	Seminar in African Development
INR 6936	Seminar in Inter-American Politics
FRE 5508	La Francophonie
HAI 5235	Haitian Creole Seminar
HAI 5xxx	Haiti, Language and Culture
SPW 6368	19 th Century Spanish-Caribbean Literature
SPN 5536	Afro-Cuban Culture
MUH 5025	History of Popular Music in the United States
MUH 5067	Music of the Caribbean
CPO 6206	Seminar in African Politics
REL 5122	African-American Religion
REL 5372	African Spirituality
REL 5384	Rasta, Voodoo, Santeria
REL 5488	Theology and Liberation Movements
ANG 5397	Advanced African Diaspora Cultures and Performativity
ANG 5396	Representation of Africa and Africans in Films
ANT 6319	The African Diaspora: Anthropological Perspectives
SYD 6705	Race and Ethnicity
SYD 6734	Seminar: Ethnic Minority Aging in U.S.
WOH 5236	The Transatlantic Slave Trade and the Making of the African Diaspora, 1441- 1807
WOH 5237	The African Diaspora Since the End of the Slave Trade

II. National and Transnational Policy Analysis

Liaison - Valerie Patterson, (College of Social Work, Justice, and Public Affairs) & Dionne Stephens (Psychology & African-New World Studies)

Courses will focus on the examination and analysis of National and Transnational Policies relevant to African people in Black urban and rural communities, national and international contexts. Emphasis will be placed on a) leadership training for governmental and non-governmental agencies; b) the development of economic policies, competencies, structures, and strategies for economic development; c) the examination of environmental issues, health policies, wellness and a variety of community practices; and d) the evaluation of current policies that affect black communities internationally. **Students in this specialization may participate in an Internship with an appropriate institution/organization that will culminate in a Research Project for 6 credit hours.**

Thesis or Internship (6 credit hours)**Required Courses (12 credits)**

AFA 5600	National and Transnational Policy Analysis: Africa and the Diaspora (must be taken in the fall of the 2 nd year of enrollment after PAD 5256 and URS 6028)
SYA 6305	Research Methods I
PAD 6053	Political, Social & Economic Context of Public Administration
URS 6028	Policy Analysis & Program Planning (Prerequisite: PAD 5256)

Students must take two courses (6 credit hours) from the list below based on availability of faculty and courses:

CPO 5325	Politics of the Caribbean
CPO 6206	Seminar in African Politics
INR 5087	Ethnicity and the Politics of Development
INR 5255	Seminar in African Development
INR 5607	International Relations and Development
INR 6056	Environment and Development
INR 6089	International Relations and Human Rights
SYD 6705	Comparative Analysis of Ethnicity and Race
SYD 6236	International Migration and Refugees
SYD 5447	Sociology of International Development
SYD 6306	Comparative Social Movements
INR 5315	Foreign Policy Analysis

Students must take two courses (6 credit hours) from the list below based on availability of faculty and courses. Students should consult the graduate program director since new courses are frequently added, and special topic courses sometimes concern Africa and the African Diaspora.

LIT 5359	African Diaspora Women Writers
LIT 5358	Black Literature and Literacy/Cultural Theory
LIN 5934	Pidgins and Creoles
LIT 5487	Major African-American Writers
LIT 6934	Black Literature & Cultural Theory
AFH 5905	Readings in African History
AFH 5935	Topics in African History
INR 5086	Islam in International Relations
INR 6936	Seminar in Inter-American Politics
FRE 5508	La Francophonie
HAI 5235	Haitian Creole Seminar
HAI 5xxx	Haiti, Language and Culture
SPW 6368	19 th Century Spanish-Caribbean Literature
SPN 5536	Afro-Cuban Culture
MUH 5025	History of Popular Music in the United States
MUH 5067	Music of the Caribbean
CPO 6206	Seminar in African Politics
REL 5122	African-American Religion
REL 5372	African Spirituality
REL 5384	Rasta, Voodoo, Santeria
REL 5488	Theology and Liberation Movements
ANG 5397	Advanced African Diaspora Cultures and Performativity
ANG 5396	Representation of Africa in Films

ANT 6319	The African Diaspora: Anthropological Perspectives
SYD 6705	Race and Ethnicity
SYD 6734	Seminar: Ethnic Minority Aging in U.S.
WOH 5236	The Transatlantic Slave Trade and the Making of the African Diaspora, 1441-1807
WOH 5237	The African Diaspora Since the End of the Slave Trade

III. Cultural Studies

Liaisons – Jean Rahier, (Sociology/Anthropology & African-New World Studies), & Augusto Soledade, (Dance)

Students working in this area will be exposed to the study, research, practice and performance, and analysis of cultural formations in the African Diaspora. Interdisciplinary in structure, fields such as dance, music, literature, art, cinema studies, language, science, and other related areas will be studied. Students will critically analyze issues of a) colonialism, global imperialism, and capitalism and their effects on Africans and peoples of African descent internationally, and b) strategies, traditions and methods of resistance to the same. Courses will involve comparative studies of African communities in Africa, the United States, the Caribbean, Latin America, and Europe, and other areas of the African Diaspora will be examined; critical reading of cultural manifestations, identities, and practices; analysis of dynamics between traditions and social transformations.

Thesis or Internship (6 credit hours)**Required Courses (15 credit hours)**

ANT 6319	The African Diaspora: Anthropological Perspectives
LIT 5487	Black Literature and Cultural Theory
REL 5384	Rasta, Voodoo, Santeria
LIN 5934	Pidgins and Creoles
WOH 5236	The Transatlantic Slave Trade and the Making of the African Diaspora, 1441-1807

From the list below, students must take three courses (9 credit hours) based on availability of faculty and courses. Students may take no more than one course in one given discipline. Students should consult with the graduate program director since new courses are frequently added, and special topic courses sometimes concern the African Diaspora.

LIT 5359	African Diaspora Women Writers
LIT 5487	Major African-American Writers
LIT 6934	Black Literature & Cultural Theory
AFH 5905	Readings in African History
AFH 5935	Topics in African History
INR 5086	Islam in International Relations
INR 6936	Seminar in Inter-American Politics
FRE 5508	La Francophonie
HAI 5235	Haitian Creole Seminar
HAI 5xxx	Haiti, Language and Culture
SPW 6368	19 th Century Spanish-Caribbean Literature
SPN 5536	Afro-Cuban Culture
MUH 5067	Music of the Caribbean
CPO 6206	Seminar in African Politics
REL 5122	African-American Religion
REL 5372	African Spirituality

REL 5488	Theology and Liberation Movements
ANG 5397	Advanced African Diaspora Cultures and Performativity
ANG 5396	Representation of Africa in Films
SYD 6705	Race and Ethnicity
SYP 6734	Seminar: Ethnic Minority Aging in U.S.
WOH 5237	The African Diaspora Since the End of the Slave Trade

Course Descriptions

Definition of Prefixes

AFA-African-New World Studies

AFA 5002 African-New World Studies: Theory and Methods (3). A study of the major ideas, thinkers, theories, and communities of African Diaspora scholarship. Research methodology in African Diaspora Studies. Prerequisites: Graduate standing or ANWS Certificate.

AFA 5107 Teaching the African-American Experience. (3). Teachers Institute on literature, culture, history, politics designed to meet Florida State Teachers Certification requirements. Includes instruction on pedagogy, practical teaching methods, and FCAT.

AFA 5341 Health Issues in the African World (3). Examination of the history of the biomedicine system and its relationship to African populations, and the evolution of this relationship with respect to disease in the contemporary world. The course is organized to promote awareness of the impact of culture, ethnicity, racism, class on public health research.

AFA 5600 National and Transnational Policy Analysis: The African Diaspora (3). Analysis of national and transnational policies as they directly relate and impact the African Diaspora. Prerequisite: Graduate Standing.

AFA 5932 Special Topics in African-New World Studies (3). An examination of different features of African-New World Studies not normally offered in the basic curriculum or otherwise offered. May be repeated. Prerequisite: Graduate Standing.

AFA 5934 Special Topics in Black Transnationalism (3). A course designed to give groups of students special studies in the black experience transnationally. Prerequisite: Graduate Standing.

AFA 6905 Independent Study (0-6). Student generated research projects in African-New World Studies. Independent investigation, reports on individual and assigned reading with ANWS core and affiliated faculty.

AFA 6920 African-New World Studies Graduate Colloquium (1). Colloquia, symposia, lectures, conferences presented by faculty, visiting scholars, and graduate students on topics of current research interest. May be repeated with departmental approval. Prerequisites: Graduate standing, graduate advisor approval.

AFA 6940 Community Project/Internship Research in African-New World Studies (1-6). Qualitative and quantitative research using a variety of sources. Research projects conducted in the field by students under faculty supervision. May be repeated with departmental approval. Prerequisites: Graduate standing, graduate advisor approval.

AFA 6971 Thesis Research in African-New World Studies (1-6). Quantitative and qualitative research using a variety of sources, e.g. primary and secondary documents, filed research under faculty supervision. May be repeated with departmental approval. Prerequisites: Graduate standing, graduate advisor approval.

LAH 5465 Peoples, Culture and Politics of Haiti (3). Advanced study of the cultures and history of the Haitian people from Africa to the New World, including life, cultures of the Indians of the Caribbean: Taino, Arawak and Caribs.

Asian Studies

Steven Heine, *Director, Religious Studies and History*

Affiliated Faculty:

Mahadev Bhat, *Environmental Studies and Economics*

Bongkil Chung, *Philosophy*

Nathan Katz, *Religious Studies*

Paul Kowert, *International Relations*

Eric Messersmith, *Asian Studies*

Laura Nenzi, *History*

Oren Stier, *Religious Studies*

Julie Zeng, *International Relations*

Master of Arts in Asian Studies

The M.A. degree in Asian Studies is an interdisciplinary program that draws on faculty from the College of Arts and Sciences and professional schools at FIU. The courses are coordinated by the Institute for Asian Studies, which also sponsors workshops, lectures, cultural events, and study abroad programs.

The master's program provides students with a rich learning experience about a fascinating and increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program provides a multidisciplinary approach covering the philosophy, religion, art history, language and literature of Asia as well as issues in history, politics, geography, sociology/anthropology, and international relations.

The M.A. has two concentrations: **International Political Economy of Asia**, which emphasizes social scientific studies involving economics, international relations, politics, and sociology; and **Asian Cultural Studies**, which emphasizes the humanities and arts disciplinary approaches.

For further information please contact the Institute for Asian Studies, located at DM 300 B, at asian@fiu.edu or at (305) 348-1914. Also, visit our website at: <http://asian.fiu.edu>.

Admission Requirements

Applicants must meet one of the following minimum requirements for admissions to the MAAS program:

1. 3.5 undergraduate GPA;
2. 550 score on the verbal portion of the GRE, or M.A. in the humanities or social sciences from an accredited institution,
3. 3.0 or above in 9 hours of graduate courses as a special student in the program. (These nine hours may not be in Independent Study courses.) A limited number of applicants may be admitted after passing a writing exam, if they also present either a 475 score on the verbal section of the GRE or a 3.0 undergraduate GPA.

International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the IBT TOEFL or 6.3 overall on the IELTS is required.

The above admission requirements are minimums and not all students meeting them are assured admission. Students with either a grade-point average or GRE score below the above minimums may still apply and request a waiver of those scores.

Degree Requirements (both concentrations)

The MAAS program offers two graduation exit options:

1. 30 credits - Completion of thesis project
2. 33 credits - Completion of a master's essay

Language Requirements

Students choosing the Master's Thesis option will be asked to demonstrate competence in an Asian language relevant to their thesis project when appropriate (e.g. for pre-modern studies or fieldwork research). Proficiency requirements will be determined by the thesis committee. Credits earned in meeting the language requirement will not count towards the credit hours required for the degree.

Core Courses (6 credits)

1. ASN 5315 Survey of Modern Asia
2. A research methods course in a discipline related to the student's primary area of study such as HIS 6059 (Historical Methods), INR 5615 (Research Design in International Relations), POS 5706 (Research Methodology), REL 6013 (Modern Analysis of Religion), REL 6935 (Seminar in Sacred Texts), SYA 6305 (Research Methods I), or equivalent.

Other Coursework (18 credits)

A minimum of 12 credits are required in the main concentration. Students may receive credit through independent study, study abroad, or internship approved by the program advisor.

Master's Thesis Option (6 credits)

ASN 6972 Thesis

Students pursuing careers in the public or private sectors requiring strong research and analytic skills, or students planning to continue with Ph.D. studies, are encouraged to select the MAAS thesis exit option. The thesis is publicly defended and approved by a committee of three graduate faculty members. The committee chair and at least one other member must be from FIU departments offering courses in the MAAS concentrations. The committee as a whole must be drawn from at least two different departments. During the thesis period, the student registers for thesis credits (six credits minimum required) with his/her thesis committee chair. Thesis projects are conducted in accordance with the FIU Regulations for Thesis / Dissertation Preparation Manual.

Non-Thesis Option: Master's Essay (3 credits) and two additional courses (6 credits)

As a substitute for the thesis option, students who are not likely to pursue a more advanced degree may choose the non-thesis option and must complete a substantial research project (Master's Essay) and two additional courses (6 credits) in either concentration to satisfy the required 33 semester credit hours.

International Political Economy of Asia Concentration Electives:

ECO 5709	World Economy
ECO 5735	Multinational Corporations
ECP 5707	International Economic Problems and Policies
EVR 5350	International Organizations and Environmental Politics
INR 5544	The New Asian Century
INR 5086	Islam in International Relations
INR 5315	Foreign Policy Analysis
INR 6205	World Politics

INR 6706	Political Economy of International Relations
SYD 6655	Seminar on Social Change in Asia

Asian Cultural Studies Concentration Electives:

ASH 5905	Readings in Asian History
ASH 5446	Pre-modern Japan
HIS 5289	Comparative History
IDS 6938	Great Ideas Seminar: Human Nature
MUH 5057	Music of the World
MUH 5575	Survey of Asian Music
REL 5331	Religions of India
REL 5346	Seminar on Buddhism
REL 5352	Religions of East Asia
REL 6395	Seminar in Asian Religions

For more information, contact the Institute for Asian Studies, DM300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: <http://asian.fiu.edu>.

Combined Bachelor/Master of Arts in Asian Studies

The combined BA/MA degree program allows highly qualified undergraduate students to pursue an accelerated MA degree in Asian Studies. Students accepted into this program will be able to complete the MA degree as early as one year sooner than would otherwise be possible. Students accepted into the Asian Studies Honors track are particularly encouraged to apply for this program.

To be accepted into the combined BA/MA degree program, students must submit an MA program application by the end of the first semester of their senior year in order to begin the MA in the second semester of their senior year. A complete application requires:

- Current enrollment in BA program in Asian Studies at FIU
- Completion of 90 credits of undergraduate coursework
- Combined GRE score of 1000
- Overall GPA of 3.2
- One letter of recommendation
- Statement of purpose discussing interests in the field

All components of the application must be completed and submitted by the end of the first semester of their senior year. Students should consult the graduate catalog and the Institute for Asian Studies website for a more comprehensive discussion of admission requirements (<http://asian.fiu.edu>).

The program gives students the opportunity to take up to 9 credits of graduate coursework in the second semester of their senior year that will count towards both the BA and the MA. Students may take up to three 5000-level or higher graduate courses in the second semester of their senior year and follow the regular MA curriculum after they earn their BA degree.

Undergraduate Senior Year

Fall Semester – apply to the program by the end of the semester

Spring Semester – take 12 credits, including 9 graduate credits in 5000-level or higher courses

Graduate Program

Summer Semester – take 3 graduate credits (5000-level or higher)

Fall Semester – take 9 graduate credits (5000-level or higher)

Spring Semester – take 9 graduate credits (5000-level or higher, including thesis or master's essay)

Students in the combined BA/MA program in Asian Studies must complete all other requirements for the MA degree in Asian Studies (please consult the graduate catalog and the Institute's online graduate handbook). Students in this program have up to a year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this year post BA requirement or who elect to leave the combined program at any time and earn only the BA degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 graduate credits in both the bachelor's and master's degrees.

Course Descriptions**Definition of Prefixes**

ASN-Asian Studies

ASN 5120 Religion and Society in Japan (3). Examines the relation between religion and the state, the growth of new religious movements, the role of religion during times of war and conflict, issues of religious freedom and legality, the impact of religious institutions on gender and ethnicity.

ASN 5130 Zen and the Arts (3). Examines the history, theory, and practice of Chado (Way of Tea), a Zen-inspired art that has had, and still exerts, a long-lasting influence on Japanese society.

ASN 5131 Zen and the Arts II (3). Theory, practice, aesthetics and cultural history of Chado the Tea Ceremony of Zen Buddhism.

ASN 5171 International Relations of Contemporary China (3). Survey of the dynamic interaction between external and internal factors on China's international relations.

ASN 5306 Applying Asian Cultural Values in Business (3). Critical survey of traditional Asian values. Topics to include the way they have been applied to the world of entrepreneurship, cultural constructions of the Asian business community and philosophical approaches to the formation of entrepreneurial strategies.

ASN 5315 Survey of Modern Asia (3). Focus on modernization, or the transition from pre-modern (classical and medieval) to elements of the modern, including westernization, industrialization, and the roles of capitalism, communism, imperialism, and colonialism, as well as the impact of post-colonialism and post-modern society in Asia.

ASN 5605 Silk Road: Then and Now (3). Examination of the historical and contemporary significance of the Silk Road as an avenue for commercial and cultural exchange between East and West.

ASN 5815 Studies of Classical East Asian Texts (3). Advanced studies of classical East Asian readings from literature and religion, including interpretation and analysis from traditional and contemporary perspectives.

ASN 5910 Independent Research in Asian Studies (1-6). Topics will be selected to meet academic needs for students doing research in some specialized area of Asian studies. Prerequisite: Permission of the instructor.

ASN 5932 Special Topics in Asian Studies (3). An examination of specific topics in Asian Studies. The content to be determined by instructor.

ASN 6912 Master's Essay in Asian Studies (3). Supervised research project. Requires prior approval by instructor. Prerequisite: Graduate standing.

ASN 6930 Seminar in Asian Studies (3). Content to be determined by the instructor. May be repeated for credit when content changes.

ASN 6940 Internship in Asian Studies (1-3). Students intern in local, national and international organizations with ties to Asia. The nature of the work to be determined in conjunction with the advisor. Prerequisite: Permission of the instructor.

ASN 6972 Master's Thesis (1-6). Writing and completion of thesis. Students must have completed all other requirements for Master of Arts degree in Asian Studies. Prerequisite: Permission of the Thesis director.

Biological Sciences

*Laurie L. Richardson, *Professor and Chairperson*

Samuel C. Allen, *Research Scientist*

*M. Alejandro Barbieri, *Assistant Professor*

*Bradley C. Bennett, *Associate Professor*

*Charles Bigger, *Professor*

Richard P. Brinn, *Instructor*

*Christopher Brown, *Professor*

Richard J. Campbell, *Research Scientist*

Chun-fan Chen, *Associate Professor*

*Laurel S. Collins, *Associate Professor*

*Timothy M. Collins, *Associate Professor*

Leon A. Cuervo, *Professor Emeritus and Biology Career Advisor*

*Maureen A. Donnelly, *Professor and Graduate Program Director*

Jack B. Fisher, *Research Scientist*

*James W. Fourqurean, *Professor*

*Javier Francisco-Ortega, *Associate Professor*

*Evelyn E. Gaiser, *Associate Professor*

Miroslav Gantar, *Research Scientist*

Robert M. George, *Instructor*

Nicole Gerard, *Research Scientist*

Walter M. Goldberg, *Professor*

Ferdinand Gomez, *Visiting Instructor*

*Michael Heithaus, *Assistant Professor*

*Rene J. Herrera, *Professor*

*Frank J. Jochem, *Assistant Professor*

*Leung Kim, *Assistant Professor*

*Suzanne Koptur, *Professor*

*Lidia Kos, *Associate Professor*

*David N. Kuhn, *Associate Professor*

*Todd C. LaJeunesse, *Assistant Professor*

Craig A. Layman, *Assistant Professor*

*David W. Lee, *Professor*

Carl E. Lewis, *Research Scientist*

John C. Makemson, *Professor and Director of Undergraduate Studies*

Joyce Maschinski, *Research Scientist*

*Kalai Mathee, *Associate Professor*

Michael Maunder, *Research Scientist*

DeEtta K. Mills, *Lecturer*

*Fernando G. Noriega, *Associate Professor*

*Steven F. Oberbauer, *Professor*

*Tom Philippi, *Assistant Professor*

Polly Phillips, *Instructor*

Thomas R. Pitzer, *Instructor and Laboratory Coordinator*

Thomas E. Pliske, *Instructor*

Lauren Raz, *Research Scientist*

*Jennifer H. Richards, *Professor*

Barbra A. Roller, *Instructor*

Gene Rosenberg, *Faculty Administrator and Associate Chairperson*

Lisa M. Schneper, *Visiting Lecturer*

*Sylvia L. Smith, *Professor*

*Philip K. Stoddard, *Professor*

Martin L. Tracey, *Professor*

*Joel C. Trexler, *Professor and Marine Biology Program Director*

Maureen Walter, *Instructor*

*Douglas Wartzok, *Professor and Vice President for Academic Affairs*

*Ophelia I. Weeks, *Associate Professor*

Scott Zona, *Research Scientist*

*Holds Dissertation Advisor Status

Master of Science in Biology

To be admitted into the Master's degree program in Biology, a student must:

1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university.

2. Have a 3.0 average or higher during the last two years of the undergraduate program and a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Exam.

3. Two letters of recommendation of the student's academic potential.

4. Be accepted by a faculty sponsor.

5. Receive approval from the Departmental Graduate Committee.

6. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Degree Requirements

The Master of Science in Biology consists of a minimum 36 credits, including a thesis based upon the student's original research. A maximum of six credits of post baccalaureate course work may be transferred from other institutions, subject to the approval of the Graduate Committee.

Required Courses

BSC 6457	Introduction to Biological Research	3
BSC 5931	Thesis Proposal Seminar	1
	Workshops and Laboratories	4
BSC 6971	Master's Thesis ²	6
	Electives ³	22
	Quantitative Skills Requirement ⁴	

¹ Following graduate committee approval, students may fulfill this requirement with any combination of graduate workshops, graduate laboratories, and graduate techniques courses (minimum of three separate courses).

² To be taken after qualifying exam is passed.

³ These must include at least 16 credits of courses in the Department of Biological Sciences. No more than six credits can be transferred from another graduate program, subject to the approval of the Graduate Committee. At least six credits must be at the 5000- or 6000-level (excluding thesis credits). Credits taken at the 4000-level beyond six, or at lower levels, will not count towards graduation.

⁴ Two semesters of graduate courses in quantitative skills (e.g., statistics, mathematics, computer programming), or demonstrated equivalence of such, is required for the Master of Science in Biology.

Graduation Requirements

A grade of 'C' or higher must be obtained in all courses with a cumulative average of 3.0 or higher in the 36 credits, and a thesis must be completed and accepted by the University.

Doctor of Philosophy in Biology

To be admitted into the Ph.D. program in Biology, a student must:

1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university;
2. Have a 3.0 grade point average during the last two years of the undergraduate program or a Master's degree in a relevant discipline;
3. Have a combined score (verbal and quantitative) of 1120 on the general Graduate Record Exam (GRE).
4. Be sponsored by a Biology faculty member with Dissertation Advisor Status (see list of graduate faculty with DAS).
5. Arrange to have three letters of recommendation sent to the Biology Graduate Program Director evaluating the applicant's potential for graduate work.
6. Receive approval from the Department Graduate Committee.
7. International graduate students applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Degree Requirements

The Ph.D. in Biology is conferred on individuals in recognition of their demonstrated ability to master a specific field of knowledge and to conduct significant independent, original research. A minimum of 90 semester credits of graduate work beyond the baccalaureate are required, including a dissertation based upon the student's original research. A maximum of 36 credits may be transferred from a completed graduate program with the approval of the Advisory Committee.

Required Courses

BSC 7961	Dissertation Proposal Seminar	1
BSC 7982	Dissertation Defense Seminar	1
BSC 5945	Supervised Teaching in Biology	2
Workshops and Laboratories ¹		4
BSC 7980	Ph.D. Dissertation	24
Electives ²		8
Quantitative Skills Requirement ³		

Recommended course

BSC 6457	Introduction to Biological Research	3
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¹Following graduate committee approval, students may fulfill this requirement with any combination of graduate workshops, graduate laboratories, and graduate courses (minimum of three separate courses).

²No more than 36 credits may be transferred from a completed graduate program, subject to the approval of the Graduate Committee.

³Two semesters of graduate courses in quantitative skills (e.g. statistics, mathematics, computer programming), or demonstrated equivalence of such, is required for the Ph.D. in Biology.

Graduation Requirements

A grade of 'C' or higher must be obtained in all courses with a cumulative average of 3.0 or higher in the 90 credits; two semesters of quantitative skills courses must be completed, and a dissertation completed and accepted by the University.

Course Descriptions

Definition of Prefixes

APB-Applied Biology; BCH-Biochemistry; BOT-Botany; BSC-Biological Science; ENY-Entomology; MCB-Microbiology; OCB- Oceanography (Biological); PCB-Process Biology; ZOO-Zoology.

BCH 5134C Workshop in Chromatography Techniques

(1). Workshop covers the theory and practice of chromatographic techniques to separate complex mixtures of biomolecules, including absorption, ion exchange, size exclusion and affinity chromatography. Prerequisite: Graduate status.

BCH 5411C Techniques in Molecular Evolution Research

(5). Ribosomal genes from related organisms are amplified by polymerase chain reaction (PCR) and sequenced. Phylogenetic maps are made by computer from sequence data. Students may use material from their own research. Prerequisites: General Biochemistry BCH 3033 and Lab BCH 3033L, Molecular Biology PCB 4524 and Lab PCB 4524L or Graduate status.

BCH 6130C Workshop in DNA Synthesis and Amplifications

(1). Workshop in the chemical synthesis of DNA and the amplification of specific genes by the polymerase chain reaction (PCR). Students may synthesize DNA oligonucleotides for use in their own research. Prerequisites: Graduate status and Permission of the instructor.

BCH 6132C Workshop in Electrophoresis

(1). Workshop in the application of electrophoresis to biochemical and genetic experimentation. Students may use material from their own research in the laboratory section. Prerequisites: Graduate status and permission of the instructor.

BCH 6133C Workshop in DNA Sequencing

(1). Workshop in the manual and automated sequencing of DNA. Students may sequence DNA from their own research. Prerequisites: Graduate status and permission of the instructor.

BCH 6507C Workshop in Radiometry and Spectrophotometry

(1). Interaction of light with matter (absorption, fluorescence, light scattering) and emission (chemi-and bioluminescence); analysis of spectra and enzyme kinetics. Prerequisites: Ecology PCB 3043 or Permission of the Instructor.

BOT 5159C Florida Plant Communities

(3). Two-week field trip to many diverse plant communities of the state. Ecological and environmental factors influencing plant distribution will be examined, contrasting vegetation among sites. Prerequisites: Ecology PCB 3043 or Permission of the instructor.

BOT 5304C Workshop in Plant Morphology

(2). Techniques to analyze plant form and experience with the diversity plant morphology; field work using the collections at Fairchild Tropical Gardens. Prerequisites: 2 botany courses or permission of the instructor.

BOT 5515 Biochemistry of Plant Natural Products

(3). Aspects of primary and secondary plant metabolism will be covered including bio-synthesis and degradation of natural products as well as their biological/ pharmacological

activity. Prerequisites: BCH 3033 General Biochemistry or CHM 4304 Biological Chemistry I.

BOT 5575 Photobiology (3). **BOT 5575L Photobiology Lab (1).** The study of basic photochemical mechanisms as they occur in molecular biological processes such as photosynthesis, plant growth, animal vision, bioluminescence, and radiation damage. Prerequisite: Permission of the instructor.

BOT 5602 The Functional Ecology of Tropical Plants (3). **BOT 5602L The Functional Ecology of Tropical Plants Lab (1).** The relationship of climate and soils to the distribution and function of the major plant groups of the tropical regions. Prerequisites: Two courses in botany or permission of the instructor.

BOT 5605 Plant Ecology (3). **BOT 5605L Plant Ecology Laboratory (1).** In-depth study of plant ecology at three levels: individual, population, and community. Laboratory and field exercises will examine lecture topics. Prerequisites: Ecology PCB 3043 or permission of the instructor. Corequisite: Concurrent registration in lecture and lab courses.

BOT 5615 Workshop: Seed Conservation (1). Covers practical issues of seed conservation of tropical plants: longevity curves, seed germination protocols and seed conservation procedures. Prerequisites: Graduate students or permission of instructor.

BOT 5647 Ecology of Marine Vascular Plants (3). Biology and ecology of seagrasses and mangroves, with an emphasis on South Florida and Caribbean species. Physiological ecology, population and community ecology, and ecosystem processes. Prerequisite: Permission of the instructor.

BOT 5648 Workshop on Aquatic Plants (1). Biology and identification of aquatic plants. Prerequisites: Graduate status or permission of the instructor.

BOT 5682C Florida Plant Communities (3). Two-week field trip to many diverse plant communities of the state. Ecological and environmental factors influencing plant distribution will be examined, contrasting vegetation among sites. Prerequisites: Ecology PCB 3043 or permission of the instructor.

BOT 5704 Botanical Terminology, Latin and Nomenclature (2). Course is divided into 3 parts: 1) Botanical Latin and its use; 2) Plant description terminology, and current descriptive standards; and 3) Botanical nomenclature, the ICBN, Phylcode, and others. Prerequisites: Plants Systematics (BOT 5725C) or Systematic Biology (BSC 5606), or approval of the Advisor.

BOT 5725C Plant Systematics (3). Theory and methods of classification of vascular plants using phylogenetic principles. Covers the integration of morphological and molecular characters. Prerequisites: Graduate students or permission of instructor.

BOT 5727 Plant Genetics (3). Topics related to higher plants, including polyploid inheritance, self-incompatibility, cytoplasmic inheritance, mutable alleles, complex loci, genome analysis, recombination and mutagenesis. Prerequisites: General Biology I (BSC 1010) and General Biology II (BSC 1011) and Genetics (PCB3063).

BOT 5728 Plant Molecular Systematics (2). DNA markers for phylogenetic analysis of vascular plants, including description of laboratory methods, computerized analytical techniques and evolutionary interpretation. Prerequisites: Graduate status or permission of instructor.

BOT 5728L Plant Molecular Systematics Laboratory (2). DNA markers for phylogenetic analysis of vascular plants, including description of laboratory methods, computerized analytical techniques and evolutionary interpretation. Prerequisites: Graduate status or permission of instructor.

BOT 5816 Ethnobotany (3). Review the use and management of plants by indigenous people. Discuss emerging theories in ethnobotany, examine the role of ethnobotany in conservation and resource utilization. Prerequisites: Economic Botany BOT 3810, Tropical Botany BOT 3663, or Cultural Ecology ANT 3403, or permission of the instructor.

BOT 5816L Ethnobotany Workshop (1). Field methods in the study of plant use by traditional and modern societies. Examines botanical documentation, ethnological description and experimental design. Prerequisite: Permission of the instructor.

BOT 5817 Field Ethnobotany (1-4). A 4-week field course that introduces students to tropical vegetation and its use by traditional cultures. Topics include tropical botany, diversity, ecology, and the relationship between plants and people. Course may be repeated. Prerequisites: BOT 5816 and BOT 5816L or permission of instructor.

BOT 5852 Medical Botany (3). An examination of medicinal plants including the biology, chemistry, and pharmacology of botanical remedies, and their effects on human health. Prerequisites: Economic Botany or BOT 5816 or permission of instructor.

BOT 5924 Workshop in Tropical Plant Families (3). An introduction to important spermatophyte families, including systematics, ecology, and conservation. Includes laboratory and field experience. Prerequisite: Permission of the instructor.

BOT 5925 Workshop in the Biology of Southern Florida's Native Trees (3). Distribution, floristic relationships, morphology, reproductive biology, taxonomy, and conservation of trees native to southern Florida. Prerequisites: Local Flora BOT 3153, Tropical Botany BOT 3663, or permission of the instructor.

BOT 5928 Workshop on Grasses and Sedges of Southern Florida (1). The systematics, ecology, and identification of South Florida grasses and sedges. Prerequisites: Graduate status or permission of the instructor.

BOT 6275 Plant Breeding Systems (3). Ecology, evolution, genetics and development of plant breeding systems. Prerequisite: Permission of the instructor.

BOT 6585C Plant Structure and Function (4). A quantitative assessment of plant architecture, morphology and anatomy in relationship to physiology, including the measurement of water relations, energy and gas exchange. Prerequisites: Permission of the instructor and graduate status.

BOT 6724 Readings in Pollination Biology (1). Current literature on pollination, including natural history, theory, experimental studies, and reviews. Prerequisites: Graduate status or permission of the instructor.

BOT 6818 Readings in Ethnobotany (1). An examination of 3 or 4 recent books in the ethnobotany or related disciplines, especially those dealing with theoretical issues. Prerequisites: BOT 5816, Graduate Standing, or permission of instructor.

BOT 6901 Readings in Plant Mating Systems (1). Current literature on theory, biology, and evolution of plant mating systems. Prerequisites: Graduate standing or permission of the instructor.

BOT 6920 Workshop in Field Techniques in Natural History of Insect/Plant Interactions (1). A workshop in the techniques for collecting and preserving plants and insects for biological and taxonomic research.

BOT 6921 Workshop in Field Techniques in Pollination Biology (1). Techniques to do a thorough study of the pollination biology of any flowering plant; basic methods and simple instruments for field observations, measurements and manipulations. Prerequisite: Graduate status.

BOT 6923 Workshop: Techniques in Plant Reproductive Biology (1). Workshop in techniques for research on pollination and fertilization in plants. Histological and microscopic examination emphasized. Prerequisites: Graduate status and permission of the instructor.

BOT 6926C Workshop in Plant Nutrient Analysis (1). Field and laboratory methods used in the assessment of nutrient availability for primary producers. Prerequisite: Permission of the instructor.

BOT 6928 Workshop on Plant Gas Exchange and Fluorescence (1). Field and laboratory methods used for measurement of plant photosynthetic production and transportation. Prerequisite: Permission of the instructor.

BOT 6935 Advanced Topics in Botany (3). An intensive study of particular plant topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

BOT 6936 Readings in Plant/Animal Interactions (1). Current literature on coevolution of plants and animals, theory, experimental studies, and reviews. Prerequisites: Graduate standing or permission of the instructor.

BSC 5215 Introduction to the Mechanics of Biological Systems (3). Mechanical principles are used to analyze the structure and function of plants and animals; especially the statics of bone systems, and support structures of plants. Prerequisite: Permission of the instructor.

BSC 5302 Ecosystems of the Past (3). Analysis of local to global change in environments through time using faunal distributions, biodiversity, biogeography, physical and chemical properties of sediments, and stable isotopes. Prerequisite: Permission of the instructor.

BSC 5405C Environmental Instrumentation (3). Theory and techniques for measurement of environmental parameters of interest to field biologist. Prerequisite: Permission of the instructor.

BSC 5406 Forensic Biology (3). Forensic applications of molecular biology including PCR, STR techniques and other laboratory methods and data interpretation. Prerequisite: Graduate status.

BSC 5459 Advanced Bioinformatics for Biologists (3). Introduction to bioinformatic resources/methods for biology graduate students, accessing, searching, retrieving, and analyzing data, including an in-depth research project. Prerequisites: BSC 1010, BSC 1011, PCB 3063.

BSC 5606 Biological Systematics (3). Systems of nomenclature and contemporary topics in classification, including molecular evidence, numerical methods and cladistics. Prerequisite: Permission of the instructor.

BSC 5926 Graduate Bioresource Workshop (1). This workshop is designed to introduce Biology graduate students to the various resources available for graduate teaching and research. Prerequisite: Graduate status.

BSC 5927 Workshop: Hyperspectral Remote Sensing in Biology (1). Basic understanding of principles, techniques and application of hyperspectral remote sensing of the Earth's natural environments. Prerequisites: Graduate Status or permission of Instructor.

BSC 5928 Workshop: Vertebrate Animal Research (1). Reviews the ethical, legal and practical guidelines for conducting research with live vertebrate animals. Required for students capturing, handling or collecting vertebrate animals in the course of research or teaching. Prerequisites: Graduate status or permission of the instructor.

BSC 5929 Workshop: Paleoecology of South Florida (2). Sampling, preparation, and identification of diatoms and foraminifera from a freshwater to marine transect, and application of ecology to interpreting past ecosystems. Prerequisite: Permission of Instructor.

BSC 5931 Thesis Proposal Seminar (1). Presentation of thesis proposal seminar. Permission of major professor required.

BSC 5933 Current Topics in Tropical Biology (3). An intensive study of particular tropical biology topics not otherwise offered in the curriculum. Prerequisite: Permission of the instructor.

BSC 5935, 6936 Topics in Biology (1-3). An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisites: Senior or graduate status.

BSC 5936 Glaser Seminar: The Biology of Tomorrow (1). A series of lectures by an invited, internationally recognized authority in biological topics of current and future concern.

BSC 5945 Supervised Teaching in Biology (1-2). Teaching in a biological discipline, under the supervision of departmental faculty. Prerequisite: Graduate status.

BSC 5975 Thesis Defense Seminar (1). Presentation of thesis defense seminar. Permission of major professor required. Prerequisite: Thesis proposal seminar.

BSC 6314 Workshop: DNA Instrumentation and Analysis (1). Introduction to instrumentation and analysis

software used for DNA profiling. Permission of the instructor required. Prerequisite: Permission of the instructor.

BSC 6415 Animal Cells in Culture (3). BSC 6415L Animal Cells in Culture Lab (2). Biology of animal cells cultured in semi-synthetic media: cell nutrition growth, cell cycle analysis, cellular transformation and differentiation, heterokaryons and somatic cell genetics. Prerequisite: Permission of the instructor.

BSC 6456C Microcomputer Use in Biology (1). Introduction to microcomputer operating environments, the utility of microcomputers in biology, and computer interfacing to biological instrumentation. Prerequisite: Permission of the instructor.

BSC 6457 Introduction to Biological Research (3). Analysis of existing biological data and experimental design. Prerequisite: Graduate status.

BSC 6925C Workshop: Non-Human DNA Profiling and Analysis (1). Current techniques in non-human DNA profiling using molecular markers. Prerequisite: Permission of the instructor.

BSC 6926 Workshop in Biology (1-2). A short intensive treatment of a specialized research topic or technique. Prerequisite: Permission of the instructor.

BSC 6946 Graduate Biology Internship (1-12). Non-thesis / non-dissertation internship in a laboratory or program outside FIU working under the supervision of a host scientist and an FIU faculty member. Prerequisite: Admission to candidacy.

BSC 6948 Laboratory Visitation (1-2). Student visits to three laboratories to learn techniques and concepts applicable to M.S. or Ph.D. research. Prerequisite: Permission of the instructor.

BSC 6971 Master's Thesis (1-12). Completion of thesis. Prerequisite: Permission of Major professor.

BSC 7961 Dissertation Proposal Seminar (1). Presentation of doctoral dissertation proposal seminar. Prerequisite: Permission of Major Professor required.

BSC 7980 Ph.D. Dissertation (1-12). Completion of dissertation. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

BSC 7982 Dissertation Defense Seminar (1). Presentation of doctoral dissertation defense seminar. Permission of Major Professor required. Prerequisite: Dissertation Proposal Seminar.

MCB 5114 Microbial Diversity (3). MCB 5114L Microbial Diversity Laboratory (1). Analysis of metabolic and morphological diversity in bacteria in the context of bacterial systematics. Prerequisites: General Microbiology MCB 3010 and Lab MCB 3010L and an additional course in microbiology or biochemistry. Corequisite: Concurrent registration of both lecture and lab courses.

MCB 5315C Workshop: Prokaryotic Cloning (2). Description of molecular genetic methods for manipulation of prokaryotic DNA. Prerequisites: PCB 3063 Genetics; BCH 3033 General Biochemistry or CHM 4304 Biological Chemistry I; or permission of the instructor.

MCB 5405 Biology of Photosynthetic Bacteria (3). MCB 5405L Biology of Photosynthetic Bacteria Lab (1). Study of the physiology and ecology of photosynthetic bacteria, including blue-green algae (cyanobacteria), purple and green bacteria, and halobacteria.

MCB 5412 Advanced Microbial Physiology (3). Overview of microbial metabolic diversity, including prokaryotic metabolic pathways, stress responses, cell signaling, and metabolic regulation. Prerequisite: Permission of the instructor.

MCB 5453L Workshop: Prokaryotic Cell Signaling (1). Covers chemical signals used by prokaryotes for cell-to-cell communications. Prerequisites: General Microbiology MCB 3010 or permission of instructor.

MCB 5605 Microbial Ecology (3). Principles and applications of microbial interactions with the environment. Current research areas are emphasized. Prerequisite: Graduate Level Standing.

MCB 6445 Microbial Bioluminescence (3). Molecular mechanisms, physiology, genetics and ecology of bioluminescence in microorganisms, particularly bacteria. Prerequisite: Permission of the instructor.

MCB 6635 Marine Microbiology (3). MCB 6635L Marine Microbiology Lab (1). Physiological-ecological study of the distribution and biology of marine bacteria; diseases of marine animals; bacterial role in oceanic mineral cycling. Prerequisites: General Microbiology MCB 3010 & Lab MCB 3010L and General Biochemistry BCH 3033 & Lab BCH 3033L or Microbial Physiology MCB 4404 and Lab MCB 4404L.

MCB 6920 Luminescence Workshop (2). Bioluminescence and chemiluminescent theory and methods applied to luminous bacteria and molecular biology. Prerequisite: Permission of the instructor.

MCB 6935 Advanced Topics in Microbiology (3). An intensive study of particular microbiological topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

OCB 5006 Advanced Biological Oceanography at Sea I (3). An in-depth overview and critical discussion of current methods employed in biological oceanography including design of and working on research ships and planning of research cruises. Prerequisite: Permission of the instructor.

OCB 5007C Advanced Biological Oceanography at Sea II (4). A hands-on experience in research at sea involving cruise planning, participation in an offshore cruise on a research vessel, and subsequent sample analysis, data evaluation and research report. Prerequisites: OCB 5006 or permission of the instructor.

OCB 5575L Workshop: Aquatic Flow Cytometry (1). A practical introduction to theories and applications of flow cytometry in the analyses of aquatic microorganisms (bacteria, phytoplankton) and their physiology. Prerequisite: Permission of the instructor.

OCB 5634 Marine Ecology (3). OCB 5634L Marine Ecology Lab (1). Review processes determining species distribution and abundance in marine ecosystems. Energy flow and trophic relationships examined. Prerequisite:

Ecology PCB 3043. Corequisite: Concurrent registration of lecture with lab course.

OCB 5670L Techniques in Biological Oceanography

(1). A laboratory course designed to acquaint the student with biological sampling techniques at sea. Shipboard experience will be required as part of the course. Prerequisites: Previous course in marine biology and permission of the instructor.

OCB 6636 Advanced Microbial Ecology (3). Diversity, ecology and physiology of marine viruses, bacteria and protozoa, their role in marine food webs and the biogeochemical cycling of carbon and nutrients, and the significance of microbial food webs for marine productivity. Prerequisites: OCB 3043 or equivalent.

PCB 5025L Molecular Biology Techniques Laboratory

(3). Covers DNA and RNA extraction, digestion, electrophoresis, Southern analysis, RFLP analysis, PCR amplification, cloning and automated sequencing. Prerequisites: Graduate status or permission of the instructor.

PCB 5184 Workshop in Microtechnique (1). Laboratory techniques required for preparation of tissues for light microscopy/histological study. Prerequisite: Graduate status.

PCB 5195 Histochemistry/Microtechnique (3). PCB

5195L Histochemistry/Microtechnique Lab (1). Chemistry and use of fixatives and dyes; histochemistry emphasizes procedures used in research and pathology labs including techniques for enzymes, protein, carbohydrate, nucleic acids and lipids. Prerequisites: General Biochemistry BCH 3033 or Cell Physiology PCB 3203.

PCB 5215 Workshop in Histo—and Immunocyto—

Chemistry (1). Laboratory techniques for preparation of paraffin-embedded and frozen sections; selected procedures to demonstrate the fundamentals of histochemical and immunocytochemical labeling methods. Prerequisite: Graduate status or permission of the instructor.

PCB 5235 Current Topics in Comparative Immunology

(1). A weekly seminar/discussion course consisting of research presentations by students, faculty and visiting scientists in the area of comparative immunology. It is recommended for students with a research interest in the comparative study of mammalian and nonmammalian species or using alternative animal models. Prerequisite: Permission of the instructor.

PCB 5236 Immune Assessment (3). A review of the genetics and biochemistry of immune dysfunction with a focus on the methods used to evaluate adaptive and innate immunological function. Prerequisites: PCB 4233 or Permission of the instructor.

PCB 5238 Marine Comparative Immunology Workshop

(1). A workshop at the Keys Marine Lab to present general and unique research methodologies associated with the immunology of marine animals. Prerequisite: Permission of the instructor.

PCB 5239 Immunophysiology (3). Physiological and endocrine regulation of the vertebrate immune system. Prerequisite: Immunology PCB 4233.

PCB 5259 Topics in Developmental Biology (3).

Molecular and cellular mechanisms in the development of plants and animals. Prerequisite: Permission of the instructor.

PCB 5307 Limnology (3) PCB 5307L Limnology (1).

Chemical and physical properties of standing and flowing freshwater systems; ecophysiology and interactions of the fresh water flora and fauna in relation to abiotic factors; oligotrophic to eutrophic conditions.

PCB 5327 Coastal Ecosystems and Modeling (3).

Basics of ecology for coastal and wetland ecosystems. The theory and mechanisms of simulation modeling. Hands-on creation and application of computer models in ecological research. Prerequisites: Ecology PCB 3043 and Calculus I MAC 2311 or permission of the instructor.

PCB 5328 Spatial and Landscape Ecology (3).

Ecological processes with spatial components, including neighborhood interactions, foraging, metapopulations, infectious diseases, invasive species, and habitat associations. Prerequisite: PCB 5423 Advanced Ecology – Population and Community. Corequisites: PCB 5454 Advanced Ecology – Community Ecosystems; MAC 2311 Calculus.

PCB 5356L Tropical Ecology Field Lab (3).

Field course in Costa Rica with fieldwork in two or more diverse habitats (rainforest, and dry forest). Emphasis on diversity and interactions between species. Visits to selected sites of deforestation, conservation and restoration.

PCB 5376 Animal Physiological Ecology (3). PCB

5376L Animal Physiological Ecology Laboratory (1). Evolution-oriented approach to physiological adaptations of animals living in diverse environments. Considers the inter relationship between behavior, energetics, and integrative regulation of metabolism. Prerequisites: PCB 3043 Ecology; BCH 3033 General Biochemistry or CHM 4304 Biological Chemistry I.

PCB 5405 Biochemical Ecology (3).

Principles of chemical communication between diverse organisms and the importance of a variety of allelochemicals in community structure. Prerequisite: Permission of the instructor.

PCB 5407 Workshop: Microelectrodes in Microbial

Ecology (1). Use of microelectrodes to measure chemical micro-environments and biological processes in natural samples. Hands-on experience with O₂ and pH electrodes. Prerequisite: Permission of the instructor.

PCB 5415 Advanced Behavioral Ecology (3).

In-depth investigation of the adaptive significance of behavior. Synthesis and discussion of literature and theory pertaining to the strategies and tactics organisms use to survive and reproduce. Prerequisites: Graduate status or permission of the instructor.

PCB 5423 Advanced Ecology: Populations and

Communities (3). Advanced analysis of population and community ecology. Prerequisites: Ecology PCB 3043 or permission of the instructor or graduate status.

PCB 5454 Advanced Ecology: Communities and

Ecosystems (3). Advanced analysis of ecological principles pertaining to communities, ecosystems, and landscapes, with special emphasis on the South Florida

and Caribbean region. Prerequisites: Ecology PCB 3043 or permission of the instructor or graduate status.

PCB 5596 Workshop: In Situ Hybridization (1). Analysis of gene expression by in situ hybridization techniques using whole mount and crysectioned tissues. Prerequisites: Graduate status or permission of the instructor.

PCB 5615 Molecular and Organismal Evolution (3). The evolutionary relationships among nucleotides and proteins as well as the processes which yield these relationships. The possible molecular events leading to speciation. Prerequisite: PCB 3063.

PCB 5616 Applied Phylogenetics (3). Methods of phylogenetic analysis with a focus on pragmatic applications to ecological and evolutionary studies. Hands-on experience with current computer programs for phylogenetic analysis. Prerequisites: Graduate status or permission of the instructor.

PCB 5665 Human Genetics (3). **PCB 5665L Human Genetics Lab (2).** Principles and techniques in the analysis of humans and primates. Prerequisites: Genetics PCB 3063 and Lab PCB 3063L, or permission of the instructor. Corequisite: Concurrent registration of lecture with lab course.

PCB 5677 Evolution and Development (3). The models and evidence for the interaction of development and evolution, using both plant and animal systems. Prerequisite: Permission of the instructor.

PCB 5685 Population Genetics (3). Advanced analysis of gene and genotype frequencies in theoretical populations and analysis of real data. Linkage equilibrium, drift, migration and selection are a few of the topics covered. Prerequisite: Genetics (PCB 3063).

PCB 5686 Population Biology (3). **PCB 5686L Population Biology Lab (1).** Intrinsic properties of natural and theoretical populations and their dynamics and interactions, and responses to disturbance. Includes field problems and computer exercises. Prerequisites: A course in genetics and evolution, or permission of the instructor. Corequisite: Concurrent registration of lecture with lab course.

PCB 5687 Evolutionary Ecology (3). **PCB 5687L Evolutionary Ecology Lab (1).** Adaptations and interactions of plants and animals in natural and disturbed habitats. Prerequisite: Ecology PCB 3043.

PCB 5725 Membrane Signal Transduction (3). Hormones and neurotransmitters as extracellular messengers. Membrane receptors and mechanisms of signal transduction: membrane channels and enzymes, direct linkage and G-protein linkage. Second messengers. Prerequisites: BCH 3033 General Biochemistry or CHM 4304 Biological Chemistry I or PCB 3203 Cell Physiology.

PCB 5786 Membrane Physiology (3). Chemical and physical properties of the plasma membrane, its biosynthesis and functions in transport and signal transduction. Prerequisites: PHY 2048 Physics with Calculus I, PHY 2049 Physics with Calculus II, BCH 3033 General Biochemistry or PCB 3203 Cell Physiology.

PCB 5835 Neurophysiology (3). **PCB 5835L Neurophysiology (1).** Comparative neurophysiology; physicochemical mechanisms of resting and action potentials; synaptic transmission; neural coding and integration; sensory-motor function and neuro-physiological basis of behavior. Prerequisites: Biochemistry BCH 3033 or Cell Physiology PCB 3203, and Calculus I MAC 2311.

PCB 6025 Molecular and Cellular Biology I (3). Protein structure, catalysis, kinetics, and molecular conformation, intermolecular forces; Prokaryotic recombination, transcription and translation, gene regulation and genome organization. Prerequisite: Graduate status.

PCB 6027 Molecular and Cellular Biology II (3). Eukaryotic recombination, transcription, translation, gene regulation and genome organization; Cellular components, cell structure, cell division, cell signaling, development, immunology and cancer. Prerequisite: Graduate status.

PCB 6176C Biological Electron Microscopy (5). Principles and techniques of transmission and scanning electron microscopy as applied to biological materials. Lecture-laboratory combination, enrollment limited. Prerequisite: Permission of the instructor.

PCB 6236 Comparative Immunology (3). An analysis of the immune systems and mechanisms of invertebrate and vertebrate animals. Prerequisite: Permission of the instructor.

PCB 6237 Immunogenetics (3). The impact of classical and molecular genetic analyses on our understanding of the immune response. Prerequisites: PCB 4233 Immunology and PCB 3063 Genetics; or permission of the instructor.

PCB 6318 Readings in Marine Ecosystems Ecology (1). Analysis of current literature on theory, data and case studies of marine ecosystem ecology. Prerequisites: Graduate status or permission of the instructor.

PCB 6417 Workshop: Modeling in Behavioral Ecology (1). Workshop on modeling techniques used to investigate behavioral ecological questions. Development of models to generate testable predictions in behavioral ecology. Prerequisite: Permission of the instructor.

PCB 6526 Advanced Molecular Biology (3). Molecular genetics, controlling mechanisms, recombinant DNA, gene splicing and gene vector construction of viral, bacterial, plant and animal systems. Prerequisite: Permission of the instructor.

PCB 6617 Advanced Phylogenetics (3). Current issues and methods in phylogenetics for advanced students. Prerequisites: Applied phylogenetics PCB 5616 or permission of the instructor.

PCB 6618C Workshop: Parallel Bayesian Phylogenetics (1). Workshop in the analysis of data to infer evolutionary relationships using Bayesian methods implemented in parallel on a computer cluster. Prerequisite: Permission of the instructor.

PCB 6675 Evolutionary Biology and Ecology in the Antilles (3). Introduction to the main ecological features of the Antilles and to the main evolutionary mechanisms

behind the unique biodiversity of these islands. Prerequisite: Graduate status.

PCB 6933 Trends in Neurobiology (2). Critical analyses and discussions of selected research articles of current interests. Seminar format. Prerequisite: Permission of the instructor.

PCB 6935 Advanced Topics in Genetics (3). An intensive study of particular genetical topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

PCB 7235 Reproductive Immunology (3). Molecular and cellular interactions in early development, ontogenetics, and mother and fetus. Prerequisite: Permission of the instructor.

PCB 7689 Advanced Topics in Population and Evolutionary Genetics (3). Comparison of the synthetic and mutational drift hypotheses; relationships between molecular and phenotypic evolutionary rates and the phenotypic effects of various forms of mutation. Prerequisite: Permission of the instructor.

ZOO 5265 Biology of Crustaceans (3). **ZOO 5265L Biology of Crustaceans Laboratory (1).** Morphology, physiology, systematics and evolution in crustaceans.

ZOO 5371 Clinical Anatomy of the Trunk and Limbs (3). **ZOO 5371L Clinical Anatomy of the Trunk and Limbs Lab (1).** A detailed analysis of the anatomical foundations of kinesiology and physical rehabilitation. Special emphasis will be placed on the functional anatomy of the trunk, pectoral and pelvic limbs with clinical correlations to the major disorders commonly treated by physical and occupational therapists. Prerequisites: ZOO 3731 Human Anatomy or ZOO 4733 Survey of Regional Anatomy. Corequisite: ZOO 5371L Clinical Anatomy of the Trunk and Limbs Lab.

ZOO 5376 Animal Design and Movement (4). Basic biomechanical and behavioral theories of how animals feed and move. Prerequisites: General Biology I BSC 1010, and II BSC 1011, Physics I PHY 2053 and II PHY 2054. [D]

ZOO 5424 Herpetology (3). **ZOO 5424L Herpetology Laboratory (1).** Biology of amphibians and reptiles from a systematic perspective. The three orders of living amphibians and the six living orders of reptiles are covered in detail. Prerequisites: General Biology I BSC 1010 and General Biology II BSC 1011, Ecology PCB 3043, or permission of the instructor. Corequisite: Concurrent registration of lecture with lab course.

ZOO 5456 Ichthyology (3). **ZOO 5456L Ichthyology Lab (1).** Systematics, structure, function, ecology, and evolution of fishes. Prerequisites: General Biology I BSC 1010, General Biology II BSC 1011 and Ecology PCB 3043. Corequisite: Concurrent registration of lecture with lab course.

ZOO 5479 Workshop in Field Ornithology: Mark and Recapture Methods (1). Instruction in techniques of banding wild birds, including their capture with mist nets, identification in the hand, and maintenance of federally required records. Prerequisites: Ornithology ZOO 4472 and Lab ZOO 4472L or permission of the instructor.

ZOO 5732 Advanced Anatomy Demonstration (1-4). Dissection and demonstration of the human body with the emphasis on structure and function. May be repeated to a maximum of eight credits. Prerequisites: Human Gross Anatomy I ZOO 3733 and Lab ZOO 3733L, Human Gross Anatomy II ZOO 3734 and Lab ZOO 3734L or permission of the instructor.

ZOO 5745 Advanced Neuroanatomy (3). In-depth knowledge of the embryonic development, structure, and function of the human nervous system with a great deal of clinical consideration. Prerequisites: Neuroscience ZOO 4743 or permission of the instructor.

ZOO 5746 Comparative Neurobiology (4). Structure and function of neural systems at many levels including biophysical and cellular mechanisms, molecular processes, neural circuits, development, and anatomy. Prerequisites: Graduate status or permission of the instructor.

ZOO 6423 Workshop on Reptile and Amphibian Sampling (1). Biology and sampling methods for reptiles and amphibians. Prerequisite: Graduate status.

ZOO 6935 Advanced Topics in Zoology (3). An intensive study of particular topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

Chemistry and Biochemistry

Stanislaw F. Whuk, *Associate Professor and Chairperson*

Jose R. Almirall, *Associate Professor*

David A. Becker, *Associate Professor*

John Berry, *Assistant Professor*

Yong Cai, *Associate Professor and Graduate Program Director*

David Chatfield, *Associate Professor*

R. Bruce Dunlap, *Professor*

Kenneth G. Furton, *Professor and Dean*

Piero R. Gardinali, *Associate Professor*

Palmer Graves, *Associate Chair, Lecturer and Coordinator of General Chemistry Laboratories*

Arthur W. Herriott, *Professor*

Rudolf Jaffe, *Professor*

Jeffrey A. Joens, *Professor and Undergraduate Program Director*

Konstantinos Kavallieratos, *Associate Professor*

Leonard S. Keller, *Professor and Coordinator of Organic Chemistry Laboratories*

John T. Landrum, *Professor and Associate Dean of Pre-Health Professional Advising*

Watson J. Lees, *Associate Professor*

Fenfei Leng, *Associate Professor*

Ramon Lopez de la Vega, *Associate Professor*

Bruce R. McCord, *Associate Professor and Forensic Science Graduate Program Director*

Alexander M. Mebel, *Associate Professor*

Jaroslava Miksovska, *Assistant Professor*

Kevin E. O'Shea, *Professor*

J. Martin E. Quirke, *Professor*

Kathleen S. Rein, *Associate Professor*

Uma Swamy, *Lecturer and Coordinator of General Chemistry Laboratories*

Xiaotang Wang, *Associate Professor*

Stephen Winkle, *Associate Professor*

Graduate Admission Requirements:

1. A minimum undergraduate grade point average (GPA) of 3.0/4.0 in chemistry and cognate science courses and a GRE combined verbal and quantitative score of at least 1000 (M.S.) or 1120 (Ph.D.) are required. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the IBT TOEFL or 6.3 overall on the IELTS is required.
2. Applicants must send a statement of purpose and arrange to have sent transcripts and three letters of recommendation evaluating the applicant's potential for graduate work. Originals of these items must be sent to the FIU Graduate Admissions office as specified at <http://gradschool.fiu.edu>. In addition, copies of these items should be mailed directly to the Graduate Program Director (general M.S. and Ph.D. programs) or the Forensic Science Graduate Program Director (Forensic Track Ph.D.). Prospective candidates should refer to both the above website and www.fiu.edu/orgs/chemistry for details regarding the application procedure, part of which must be completed on-line.

3. Formal admission to the M.S. and Ph.D. programs is granted by the Graduate Admissions Office. Awards of teaching assistantships are granted by the Graduate Program Director. The Graduate Committee recommends admissions on the basis of a ranking of graduate applicants made by the pertinent committee (for example, the Forensic Graduate Committee for forensic track applicants). Entrance is possible at the beginning of each semester (fall, spring, summer). For consideration for a graduate assistantship, all application materials should be received at least five months prior to the desired starting date.
4. Students whose undergraduate degree is not equivalent to the American Chemical Society certified Bachelor of Science degree in chemistry may be required to make up deficiencies. For example, depending on his or her area of specialization, a student may be required to make up deficiencies in quantum mechanics, instrumental analysis, or biochemistry by successfully completing Graduate Physical Chemistry II (CHM 5426), Graduate Analytical Methods (CHM 5150), or Graduate Biological Chemistry (CHM 5305) respectively.
5. Entering graduate students must pass two proficiency exams. Proficiencies are offered in organic, physical, inorganic, analytical, and biochemistry. One pass must be in either organic or physical chemistry; the other is open. The proficiency exams will be administered to incoming graduate students in the week before the fall and spring semesters. If a student fails to receive a pass in a proficiency exam, he or she must show proficiency by completing the appropriate course with a grade of "B" (3.0/4.0) or better. These courses are Graduate Organic Chemistry (CHM 5225), Graduate Physical Chemistry (CHM 5425), Graduate Analytical Methods (CHM 5150), and Graduate Biological Chemistry (CHM 5305). Students are expected to complete proficiency requirements by the end of their first semester.
6. Graduate students must maintain a GPA of 3.0/4.0. Only courses applicable to the graduate program, excluding those for making up deficiencies or satisfying proficiencies, are counted in the GPA. If the cumulative GPA drops below 3.0 for one semester, the student will be placed on academic probation. A student who fails to raise his or her GPA to 3.0 or higher within one semester will be dismissed from the program.
7. Full-time graduate students generally serve as a Teaching Assistants (TA's) in the Department of Chemistry and Biochemistry for their first semester. Ph.D. candidates must serve as TA's for at least one year except in unusual circumstances. TA's are awarded on a competitive basis, require a minimum cumulative GPA of 3.0, and can be continued for up to two years for M.S. students and four years for Ph.D. students who maintain acceptable academic performance. A limited number of Graduate Research Assistantships (RA's) may be available.

Transfer of Credits and Financial Support

Transfer of credits. Students having an M.S. in chemistry may transfer as many as 36 credits towards their Ph.D. degree. However, no more than six of those credits will count toward fulfillment of the formal course work requirement. More than six credits for formal course work

can be transferred only with special permission of the Graduate Committee, in which case the number of additional course work credits required will depend on the student's performance in courses, the date courses were completed, and the area of Ph.D. concentration.

Financial Support. Full-time graduate students in good academic standing are eligible for financial support. Teaching and research assistantships are available on a competitive basis. Inquiries concerning application to the program and availability of financial support should be directed to the Chemistry Graduate Program Director.

Master of Science in Chemistry

Degree Requirements

1. A minimum of 32 credits of course work. A grade of "C" or higher must be obtained in all courses, and a cumulative grade point average of 3.0 or higher which must be maintained. The course work must include:
 - a) At least nine credits of chemistry in at least two of the five major areas of chemistry (Analytical, Biochemistry, Inorganic, Organic, and Physical) from the core listed below:

Core Courses (three credits each)

Analytical

CHM 5138	Advanced Mass Spectrometry
CHM 5156	Advanced Chromatography
CHM 5165	Chemometrics and Sampling
CHM 6157	Advanced Analytical Chemistry

Biochemistry

CHM 5325	Physical Chemistry of Proteins
CHM 5503	Physical Chemistry of Nucleic Acids
CHM 5506	Physical Biochemistry

Inorganic

CHM 5251	Organometallic Chemistry
CHM 5440	Kinetics and Catalysis
CHM 5540	Group Theory in Chemistry
CHM 5650	Physical Inorganic Chemistry

Organic

CHM 5236	Spectroscopic Techniques and Structure Elucidation
CHM 5250	Organic Synthesis
CHM 5260	Physical Organic Chemistry

Physical

CHM 5423	Atmospheric Chemistry
CHM 5490	Physical Spectroscopy
CHM 5540	Group Theory in Chemistry
CHM 5586	Computational Chemistry
CHM 6430	Advanced Thermodynamics
CHM 6461	Statistical Thermodynamics
CHM 6480	Quantum Mechanics

Courses not listed above may be counted as core courses with prior departmental approval.

- b) At least six credits of additional graduate-level courses approved by the thesis committee in consultation with the Graduate Program Director with the following guidelines:
 1. The courses must be 5000 or 6000 level chemistry courses (CHM prefix) or approved cognates (up to a maximum of six credits).
 2. The following do not count toward satisfaction of this requirement: proficiency courses and courses taken to make up for undergraduate-level deficiencies in chemistry (including CHM 5150, CHM 5225, CHM 5305, CHM 5425, and CHM 5426); and courses corresponding to research,

seminar, colloquium, supervised teaching, and thesis completion (CHM 6910L, CHM 6935, CHM 6936, CHM 6940, CHM 6970, and CHM 6971).

- c) Full-time graduate students are required to register for one credit of CHM 6940 (Supervised Teaching) each semester they serve as teaching assistants.
 - d) Full-time graduate students are required to register for one credit of CHM 6935 (Graduate Seminar) or one credit of CHM 6936 (Chemistry Colloquium) each fall and spring semester.
 - e) At least one credit of CHM 6936 (Chemistry Colloquium) is required. Each student must present a seminar on their proposed research at the colloquium for a letter grade in their second semester of graduate study.
 - f) At least eight credits of CHM 6970 (Thesis Research) involving independent thesis research under the direction of a faculty member in the Department.
 - g) At least two credits of CHM 6971 (Thesis) taken in the semester in which the M.S. thesis is to be defended.
2. Satisfactory public presentation and defense of a research thesis, evaluated by the student's Thesis Committee. The Thesis Committee will consist of the research advisor and a randomly-assigned committee member appointed by the Graduate Program Director, both from the Department's graduate faculty, and one additional member with expertise in the student's research area. At least one committee member must be tenured in the Department. The Committee may include more members, but they will be non-voting.

Accelerated Master of Science in Chemistry Admission Requirements

- Current enrollment in the Bachelor of Science program in chemistry at FIU.
- Completed at least 60 credits of coursework (including UCC).
- Current GPA of 3.2 or higher.
- GRE general test score of 1000 (verbal and quantitative combined), with a minimum quantitative score of 550.
- Three letters of recommendation.
- Approval of the Chemistry Graduate Committee.

Completion Requirements

Completed Bachelor of Science degree in chemistry at FIU Required:

- 9 credits (3 courses) selected from graduate chemistry core courses. Required courses must be completed with an average of "B" or higher, and only one course may receive a grade less than "B-".
- Electives: 3 courses selected from the Chemistry Graduate Elective Offerings.
- 9 credits of Thesis Research and 2 credits of Thesis.
- 1 credit of Colloquium.
- Overlap: Up to 3 graduate level courses (9 credits) may be used to satisfy both the Bachelor's and Master's degree requirements.

Accelerated Master of Science in Forensic Science

Admission Requirements

- Current enrollment in the Bachelor of Science program in chemistry at FIU.
- Completed at least 60 credits of coursework (including UCC).
- Current GPA of 3.2 or higher.
- GRE general test score of 1000 (verbal and quantitative combined), with a minimum quantitative score of 550.
- Three letters of recommendation.
- Approval of the Chemistry Graduate Committee.

Completion Requirements

Completed Bachelor of Science degree in chemistry at FIU.

Coursework

Required Courses:

BSC 5406	Forensic Biology
CHS 5542	Forensic Chemistry
CHS 5531	Forensic Analysis

- Required courses must be completed with an average of "B" or higher, and only one course may receive a grade of less than "B-".
- Electives: 5 courses selected from the Forensic Science Graduate Elective Offerings.
- 6 credits of Thesis Research and 1 credit of Thesis.
- 1 credit of Colloquium.
- Overlap: Up to 3 graduate level courses (9 credits) may be used to satisfy both the Bachelor's and Master's degree requirements.

Doctor of Philosophy in Chemistry

Degree Requirements

1. A minimum of 81 credits of course work. A grade of "C" or higher must be obtained in all courses, and a cumulative GPA of 3.0 or higher must be maintained. The course work must include:
 - a. At least nine credits of chemistry courses, including courses from at least two of the five major areas of chemistry (Analytical, Biochemistry, Inorganic, Organic, and Physical) selected from the core courses listed above (see M.S. in Chemistry 1a).
 - b. At least nine credits of additional graduate-level chemistry courses approved by the dissertation committee in consultation with the Graduate Program Director. The guidelines listed above in sections 1b(1) and 1b(2) for the M.S. degree also apply to these courses.
 - c. Full-time graduate students are required to register for one credit of CHM 6940 (Supervised Teaching) each semester they serve as teaching assistants.
 - d. Full-time graduate students are required to register for one credit of CHM 6935 (Graduate Seminar) or one credit of CHM 6936 (Chemistry Colloquium) each fall and spring semester.
 - e. At least one credit of CHM 6936 (Chemistry Colloquium) is required. Each student must present a seminar on their proposed research at

the colloquium for a letter grade by the end of their third semester of graduate study.

- f. At least eight credits of CHM 7910 (Dissertation Research) involving independent dissertation research under the direction of a faculty member in the Department are required.
 - g. At least 20 credits of CHM 7980 (Ph.D. Dissertation) are to be taken after the student has advanced to candidacy.
2. Satisfactory completion of cumulative examinations. The student will begin taking the cumulative examinations after completing the proficiency requirements but no later than the beginning of the student's second semester. Six examinations, each lasting three hours, will be given per year. The student must pass four out of ten consecutively-offered exams for admission to candidacy.
 3. (a) Satisfactory presentation and defense of an original research proposal (on a topic not related to the student's specific doctoral research project) and (b) satisfactory completion of a Preliminary Oral examination. The presentation and examination occur consecutively in a single session and must be completed before the end of the fifth semester (excluding summers). The examination will be conducted by the Dissertation Committee, be based on the student's dissertation research, and include questions from the student's major field and cognate fields. After fulfilling this requirement, passing the comprehensive examinations, and completing all required course work, the student advances to candidacy.
 4. Satisfactory public presentation and defense of a research dissertation, evaluated by the Dissertation Committee. The student's Dissertation Committee will consist of the research advisor (a FIU graduate faculty member who holds dissertation advisor status), a member from outside the Department, or School, but within FIU, a randomly-assigned member appointed by the Graduate Program Director from the Department's graduate faculty, and at least two additional committee members with expertise in the student's research area. At least three members of the Dissertation Committee, including the major research advisor, must be graduate faculty members from the Department of Chemistry and Biochemistry, and at least two of these three members must be tenured. The Committee may include additional members, but they will be non-voting.

Doctor of Philosophy in Chemistry with a Forensic Science Track

To be admitted into the Ph.D. program in Chemistry with a Forensic track, a candidate must:

1. Hold a Bachelor's degree in chemistry, forensic science or a relevant discipline from an accredited college or university approved by the Chemistry graduate committee. The minimum requirement is a bachelors degree in a natural science with a least 7 semester courses (28 hours including labs) of chemistry courses including physical chemistry, analytical chemistry and biochemistry. Any deficiencies must be completed before being fully accepted to the Ph.D. program;
2. Have a 3.0/4.0 average or higher during the last two years of the undergraduate program or a Master's degree in a relevant discipline;

3. Have a combined score (verbal and quantitative) of 1120 or higher on the Graduate Record Exam;
4. Arrange to have three letters of recommendation sent to the Forensic Science Graduate Program Director evaluating the applicant's potential for graduate work;
5. Pass at least two proficiency exams in either analytical or biochemistry and either organic or physical chemistry – students who have not taken physical chemistry must take one semester of physical chemistry to make up the deficiency;
6. Receive approval from the Forensic Science Graduate Committee*;
7. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

All admissions to the Chemistry Ph.D. program must be recommended by the chemistry graduate committee and signed off by the chemistry graduate program director.

Degree Requirements

1. A minimum of 81 credits or course work. A grade of "C" or higher must be obtained in all courses, and a cumulative GPA of 3.0 or higher must be maintained. Students must choose either the Analytical or the Biochemistry concentration. The course of study must include:
 - a. Twelve credits of required classes that depend on the concentration (each of the following courses is worth three credits):

Analytical Chemistry/Trace Concentration

BSC 5406	Forensic Biology	3
CHS 5542	Forensic Chemistry	3
CHS 5539	Forensic Toxicology	3
CHS 5545	Chem Anl. Explosives	3
	or	
CHS 5538	Chem Anl. of Drugs	3

Biochemistry/DNA Analysis Concentration

BSC 5406	Forensic Biology	3
CHS 5542	Forensic Chemistry	3
CHS 5536	Forensic DNA Chemistry	3
PCB 5685	Population Genetics	3

- b. Two chemistry core courses chosen from the following: Advanced Chromatography (CHM 5156); Advanced Mass Spectrometry (CHM 5138); Spectroscopic Techniques (CHM 5236); Organic Chemistry of Nucleic Acids (CHM 5302); Physical Biochemistry (CHM 5506); Advanced Analytical Chemistry (CHM 6157); Chemometrics & Sampling (CHM 5165); Advanced Biological Chemistry (CHM 6982).
- c. At least one elective. The list of approved electives is maintained by the Chemistry and Forensic Graduate Committees.
- d. Full-time graduate students are required to register for one credit of CHM 6940 (Supervised Teaching) each semester they serve as teaching assistants.
- e. Full-time graduate students are required to register for one credit of CHM 6935 (Graduate Seminar) or one credit of CHM 6936 (Chemistry Colloquium) each fall and spring semester.

- f. At least one credit of CHM 6936 (Chemistry Colloquium) is required. Each student must present a seminar on their proposed research at the colloquium for a letter grade by the end of their third semester of graduate study.
 - g. At least eight credits of CHM 7910 (Dissertation Research) involving independent dissertation research under the direction of a faculty member in the Department.
 - h. At least 20 credits of CHM 7980 (Ph.D. Dissertation) is to be taken after the student has advanced to candidacy.
2. Successful completion (grade of "pass") of a comprehensive exam composed by the student's Dissertation Committee and approved by the Dissertation Advisor in consultation with the Forensic Graduate Committee.
 3. Presentation and defense of an original research proposal on a forensic-related topic that is not related to the student's specific doctoral research project. The topic must be approved by the Dissertation Advisor in consultation with the Forensic Graduate Committee. After fulfilling this requirement, passing the comprehensive exam, and completing all required course work, the student advances to candidacy.
 4. Satisfactory public presentation and defense of a research dissertation, evaluated by the Dissertation Committee. The composition of the Dissertation Committee is as described in section 4 for the Ph.D. in Chemistry (no track) above.

Course Descriptions

Definition of Prefixes

CHM-Chemistry; CHS-Chemistry-Specialized; ISC-Interdisciplinary Natural Sciences; OCC-Oceanography-Chemical.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

CHM 5138 Advanced Mass Spectrometry (3). Intensive examination of the processes and techniques involved in creating, controlling and measuring ionic species by mass spectrometry. Theory of mass spectrometry, methods of ionization, instrumental designs, quantitative mass spectrometry, meta-stable ions, and tandem mass spectrometry. Prerequisites: CHM 4130, CHM 4130L or Permission of Instructor.

CHM 5139C Mass Spectrometry Workshop (2). Basic description of processes and techniques involved in creating, controlling and measuring elemental or molecular ionic species by mass spectrometry techniques. WS designed to provide hands on experience. Prerequisite: CHM 4130.

CHM 5150 Graduate Analytical Methods (3). Analysis of analytical data, electrochemistry, spectro-analytical techniques, chromatography, survey of new analytical methods. Prerequisites: Graduate standing or permission of the instructor. (F,S)

CHM 5156 Advanced Chromatography (3). Intensive examination of the contemporary practice of chromatography including available chromatographic techniques, their selection and application. Prerequisites: CHM 4130 or permission of the instructor.

CHM 5165 Chemometrics and Sampling (3). Methods of evaluating analytical chemistry data. Planning sampling design for water, air and solids. Sample preparation and extraction techniques. Prerequisite: CHM 4130.

CHM 5181 Special Topics in Analytical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Core course Prerequisites: CHM 4130 or permission of the instructor.

CHM 5225 Graduate Organic Chemistry (3). Advanced topics in organic chemistry. Structure of organic molecules, reaction mechanisms, organic synthesis, and natural product chemistry. Prerequisites: Graduate standing or permission of the instructor. (F,S)

CHM 5236 Spectroscopic Techniques and Structures Elucidation (3). Advanced techniques for the spectroscopic identification of organic compounds. Interpretation of spectral information for determination of structures of various classes of organic compounds. Prerequisites: CHM 4220 and CHM 4230L.

CHM 5250 Organic Synthesis (3). Use of classical and modern reactions in the design and construction of complex organic molecules including natural products. Some topics covered will be construction reactions, refunctionalization, stereochemistry and conformational analysis. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5251 Organometallic Chemistry (3). Fundamentals and applications of organometallic chemistry. Structures and bonding, ligand types, organometallic reactions, physical methods of characterization. Prerequisites: CHM 4610, CHM 3411.

CHM 5252 Asymmetric Synthesis (3). Recent advances in asymmetric synthesis for the selective design and construction of tetrahedral stereocenters. Focus on principles of configuration in transition state assemblies. Prerequisite: CHM 4220.

CHM 5260 Physical Organic Chemistry (3). A series of topics will be discussed including molecular orbital theory as it pertains to organic molecules, kinetic and thermodynamic approaches to the study of reaction mechanisms, quantitative approaches to conformational analysis, etc. Prerequisites: CHM 4220 and physical chemistry or permission of the instructor.

CHM 5280 Natural Products Chemistry and Biosynthesis (3). Studies of the chemical origins (biosynthesis), properties, and synthesis of the various classes of naturally occurring compounds: terpenes, steroids, alkaloids, acetogenins. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5302 Organic Chemistry of Nucleic Acids (3). Organic chemistry of ribose sugars, nucleotide heterocyclic bases, mechanism-based inhibitors of enzymes involve in nucleic acid metabolism, and chemical synthesis of DNA. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5305 Graduate Biological Chemistry (3). Structures of biological molecules; Biochemical reaction mechanisms; Enzyme kinetics; γ Biomolecular thermodynamics; Biomolecular spectroscopy. Prerequisites: Graduate standing or permission of instructor.

CHM 5306 Special Topics in Biological Chemistry (3). Investigation of one or more areas of biologically related chemistry. Prerequisites: CHM 4305 or permission of the instructor.

CHM 5325 Physical Chemistry of Proteins (3). Protein structures, dynamics and functions. Use of spectroscopic methods. Thermodynamics of protein folding and ligand binding. Enzyme Kinetics. Prerequisites: Biological Chemistry and Physical Chemistry or permission of instructor.

CHM 5351 Computer Modeling of Biological Molecules (3). Introduces use of computers in studying biological macromolecules. Simulations, visualization methods, software, databases. Prerequisite: CHM 3411, Biochemistry recommended.

CHM 5380 Special Topics in Organic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 4220 and physical chemistry or permission of the instructor.

CHM 5423 Atmospheric Chemistry (3). Chemical processes in atmospheres. Photochemistry, chemical kinetics, tropospheric and stratospheric chemical reactions, anthropogenic effects on the earth's atmosphere and chemistry of planetary atmospheres. Prerequisites: CHM 3411, or permission of the instructor.

CHM 5425 Graduate Physical Chemistry (4). Prequantum physics, the Schrodinger equation and its solutions, atoms and molecules, rotational, vibrational, and electronic spectroscopy. Prerequisites: Graduate standing or permission of the instructor.

CHM 5426 Graduate Physical Chemistry II (4). Gas laws; thermodynamics and equilibrium, electrochemistry, and chemical kinetics. Prerequisite: Graduate standing or permission of the instructor.

CHM 5440 Kinetics and Catalysis (3). Theory of elementary reactions, activated complex theory, mechanisms of complex reactions. Prerequisites: CHM 3411, MAP 3302.

CHM 5490 Physical Spectroscopy (3). Introduction to atomic and molecular quantum states, selection rules, and fundamental principles of spectroscopy. Introduction to group theory and to the theory of UV/visible, infrared, Raman, microwave, NMR, photo-electron, and mass spectroscopies, and the applications of these methods to the determination of fundamental physical properties and the structure of organic and inorganic molecules. Prerequisite: Physical Chemistry.

CHM 5490L Physical Spectroscopy Lab (1). The theory of spectroscopy and the use of modern instrumentation to investigate molecular structure. Prerequisites: CHM 2211, 2211L. Corequisites: PHY 4604 or CHM 5490.

CHM 5503 Physical Chemistry of Nucleic Acids (3). Physical chemistry of nucleic acids including spectroscopic determination of structures of DNAs, RNAs, and DNA-protein complexes and thermodynamic and kinetic studies of nucleic acid-ligand complexes and nucleic acid structures. Prerequisites: CHM 4305 or permission of the instructor.

CHM 5506 Physical Biochemistry (3). Physical properties of biomolecules, molecular conformation; thermodynamic, kinetic, and spectroscopic properties of biomolecules. Prerequisites: CHM 4305 or permission of the instructor.

CHM 5517 Solid State (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, and dielectric materials. Prerequisites: CHM 5490 or PHY 4604.

CHM 5540 Group Theory In Chemistry (3). The fundamental theory is developed with emphasis given to representations. Specific applications covered, with emphasis on molecular orbital theory and spectroscopy. Prerequisite: CHM 3411.

CHM 5581 Special Topics in Physical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 3411 or permission of the instructor.

CHM 5586 Computational Chemistry (3). Surveys computational methods for studying issues pertinent to organic and biological chemistry. Emphasis on developing an understanding of principles and putting methods to use. Includes methods for studying reaction thermodynamics, reaction mechanisms and NMR spectral properties. Prerequisites: CHM 3410, CHM 3411.

CHM 5650 Physical Inorganic Chemistry (3). Introduction to use of physical methods to determine the structure of inorganic compounds. Prerequisites: CHM 4610 or permission of the instructor.

CHM 5681 Special Topics in Inorganic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 4610 or permission of the instructor.

CHM 5765 Aquatic Chemistry (3). Redox chemistry, chemistry of sediments, organic biogeochemistry, chemodynamics, and fates or organic pollutants in aqueous environments. Prerequisites: CHM 2211, CHM 4130, or permission of the instructor.

CHM 5931 Special Topics (3). A course covering selected special topics in chemistry.

CHM 5932 Special Topics (3). A course covering selected special topics in chemistry.

CHM 5936 Special Topics in Environmental Chemistry (3). An intensive examination of one or more areas selected by the instructor and students. Prerequisite: Permission of the instructor.

CHM 6157 Advanced Analytical Chemistry (3). Modern analytical methods, applications, and instrumentation. Topics include spectroscopy, chromatography, electrochemistry, optimization theory, and computerized instrumentation. Prerequisites: CHM 4130 or permission of the instructor.

CHM 6166 Hyphenated Analytical Techniques (3). Covers hyphenated analytical techniques required for the analysis of trace elements and organic compounds in environmental and biomedical sciences. Prerequisites: CHM 4130 or equivalent.

CHM 6281 Environmental Organic Chemistry (3). Characteristics, origin, fate and transformation of organic compounds in air, water, sediments and biota. Prerequisites: CHM 2211, CHM 3411, or permission of the instructor.

CHM 6340 Organic Geochemistry (3). Organic geochemistry of recent and ancient environments. Characteristics, origin, and transformation of organic matter in the geosphere, including formation of crude oil. Prerequisites: CHM 2211, CHM 3411, CHM 4130, GLY 1010, or permission of the instructor.

CHM 6382 Advanced Biological Chemistry (3). In depth exploration of one or more biological chemistry areas, for example, use of multinuclear NMR in examining nuclear acids and proteins; biosynthesis of toxins, roles of porphyrins. Topics covered vary with instructor. Prerequisites: Biological Chemistry and Physical Chemistry or permission of instructor.

CHM 6430 Advanced Thermodynamics (3). The laws of classical thermodynamics and their application. Open and closed systems, irreversible processes, high and low temperature systems, solids, liquids, and gases. Core course. Prerequisites: CHM 3411 or permission of the instructor.

CHM 6449 Photochemistry (3). Fundamentals of photochemistry. Excited states, energy, and electron transfer processes, photo-oxidation, reactive species, and environmental photochemistry. Prerequisites: CHM 4220 or permission of the instructor.

CHM 6461 Statistical Thermodynamics (3). Principles of statistical thermodynamics. Ensembles, classical and quantum statistics, ideal and nonideal gases, equilibrium, crystals, liquids, and polymers. Prerequisites: CHM 3411 or permission of the instructor.

CHM 6480 Quantum Mechanics (3). Introduction to quantum mechanics. The Schrodinger equation and its solutions, approximation methods, spin, symmetry, structure of atoms and molecules. Prerequisites: CHM 3411 or permission of the instructor.

CHM 6511 Polymer Chemistry (3). A quantitative study of polymers. Mechanism of formation, configuration of polymer chains, and the relationship between physical properties and chemical constitution. Prerequisite: CHM 3411 or permission of the instructor.

CHM 6621 Inorganic Reaction Mechanisms (3). Review of kinetics and determination of mechanism. Study of mechanism of reactions of coordination complexes including electron transfer reactions, ligand substitution reactions, coordinated ligand reactions of importance in homogeneous catalysis. Prerequisite: Physical Chemistry I (Kinetics).

CHM 6624 Coordination Chemistry (3). Electronic structure of metals and transition metal complexes; redox reactions; introduction to organometallic and Bioinorganic Chemistry. Symmetry and group theory applied to Transition Metal Complexes. Physical methods in Inorganic Chemistry. Prerequisites: CHM 3410 Physical Chemistry (Kinetics), CHM 3411 Physical Chemistry II (Quantum Mechanics).

CHM 6905 Independent Study in Chemistry (1-6). Independent study and problems in an area of chemistry, under faculty supervision. May be repeated. Prerequisite: Permission of the instructor.

CHM 6910L Graduate Research in Chemistry (VAR). The student works directly with a professor on a research project. Credit is assigned on the basis of four hr/wk per credit hour. Results to be presented as a seminar. Permission of the instructor.

CHM 6935 Graduate Seminar (1). An examination of various current research topics in chemistry. Prerequisite: Graduate standing.

CHM 6936 Chemistry Colloquium (1). Analysis of current developments and topics presented by faculty members and registered students. Prerequisite: Admission to graduate program in chemistry.

CHM 6940 Supervised Teaching (1-3). Graduate student serves as lecturer and demonstrator in undergraduate laboratories coordinated and supervised by a faculty member. May be repeated. A maximum of three hours may apply to the Master's degree. Prerequisite: Good graduate standing.

CHM 6949 Industrial Internship (3). A semester of supervised work in an outside laboratory. Prerequisite: Permission of the instructor.

CHM 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of the department.

CHM 6971 Master's Thesis (1-6). Completion of thesis. Prerequisite: Permission of major professor.

CHM 7910 Dissertation Research (1-10). Research towards the completion of a doctoral dissertation. Repeatable. Prerequisite: Graduate Standing.

CHM 7980 Ph.D. Dissertation (1-12). Completion of doctoral dissertation. Prerequisite: Permission of Major Professor and Doctoral Candidacy. May be repeated.

CHS 5502 Forensic Chemistry for Teachers (3). Incorporates concepts and techniques from the application of analytical chemistry, molecular biology, biochemistry, toxicology, and microscopy to forensic casework. Exposure to teaching resources in these areas and case study format of presentation. Open to education majors only. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, and CHM 2211L or permission of instructor.

CHS 5531 Forensic Analysis (3). Advanced topics on the role that physical evidence plays in their criminal justice system. Topics include crime scene methods, laboratory management and the legal framework as it relates towards physical evidence. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L, or permission of the instructor. (Does not count towards chemistry elective requirement).

CHS 5531L Forensic Analysis Lab (1). Laboratory to accompany Forensic Analysis CHS 5531. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 5536 Forensic DNA Chemistry (3). Chemical basis for current methodologies of DNA analysis. DNA

sequencing, PCR, STR, AFLP, mass spectrometry. Prerequisites: CHM 4304 or permission of instructor.

CHS 5538C Chemistry and Analysis of Drugs (3). Introduction to the chemistry of drugs of abuse, including reactivity, synthesis and the principles of analysis from solid doses and from body fluids. Laboratory analysis through the determination of unknown samples. Prerequisites: CHM 4130, CHM 4130L, CHM 4304, CHM 4304L.

CHS 5539 Forensic Toxicology (3). Provides the basic concepts of forensic toxicology as it applies to drug and body fluid analysis. Prerequisites: CHM 2211+L, CHM 3120+L, CHM 4305+L (BCH 3033+L) or permission of instructor.

CHS 5542 Forensic Chemistry (3). Advanced analytical methods in Forensic Chemistry for application to the analysis of controlled substances, materials (i.e., paint, glass, and fibers), flammable and explosives residues with an emphasis on new methods and method development.

CHS 5545 Chemistry and Analysis of Explosives (3). Chemistry and reactivity, including thermochemistry, of modern industrial and military explosives' with an emphasis on the analysis of explosives residues from post-blast debris and from samples of environmental interest. Prerequisites: CHM 4130, CHM 4130L.

CHS 6905 Independent Study in Forensic Science (1-6). Independent study and problems in an area of forensic science under faculty supervision. Prerequisite: Permission of instructor.

CHS 6946 Graduate Forensic Internship (1-6). Internship in an operational forensic laboratory, contributing in a specific manner on an assigned research project. Six hours a week minimum residence time per credit in the lab under the supervision of a host lab scientist and a faculty member is required. A final written report and presentation required. Prerequisite: Core courses in Forensic M.S. Program.

Creative Writing

Carmela Pinto McIntire, *Associate Professor and Chairperson*

Les Standiford, *Professor and Director, Creative Writing*

Lynne Barrett, *Professor*

John Dufresne, *Professor*

Denise Duhamel, *Associate Professor*

James W. Hall, *Professor*

Campbell McGrath, *Professor*

Dan Wakefield, *Writer in Residence*

Master of Fine Arts in Creative Writing

The Master of Fine Arts in Creative Writing is the terminal degree for the practicing writer, designed to qualify the recipient to teach creative writing on the collegiate and university level. The program is housed at the Biscayne Bay Campus. Writers enjoy the opportunity for editorial experience with Gulf Stream magazine, the annual FIU literary awards competition, the annual FIU Writers Workshop, the Miami Book Fair, and the Writers on the Bay Series, which has included residencies by such writers as Gay Talese, Robert Pinsky, Carolyn Forché, Louis Simpson, John Wideman, Elmore Leonard, James Crumley, Luisa Valenzuela, Tony Hillerman, and Henry Taylor. Such major writers as Maxine Kumin, James Jones, Pete Hamill and George Garrett have served on the regular faculty.

Admission Requirements

Applicants must have a baccalaureate degree, a 3.0 GPA and a 1000 combined score on the GRE, and a minimum of nine semester hours of undergraduate work in creative writing. However, admission is based primarily on the strength of the applicant's submitted writing sample. Deadline is January 15.

Degree Requirements

Forty eight semester hours are required in studio/academic curriculum, with a minimum in each area as follows:

Literature	15
Writing Workshop (both poetry and fiction required)	18
Form and Theory	3
Thesis	6

There is no foreign language requirement. Graduate workshops include short fiction, the novel, memoir, screenwriting, creative non-fiction, and poetry. The program places emphasis on the preparation and completion of a book-length creative thesis. Candidates must pass a final defense/examination.

Fellowships, teaching assistantships, and tuition remission scholarships are available on a competitive basis.

Course Descriptions

Definition of Prefixes

CRW-Creative Writing; ENG-English.

CRW 5130 Advanced Fiction Workshop (5). Practice in the techniques and analysis of fiction through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW course work.

CRW 5331 Advanced Poetry Workshop (5). Practice in the techniques and analysis of poetry through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW course work.

CRW 5620 Advanced Screenwriting Workshop (5). Practice in the techniques and analysis of screen-writing through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW course work.

CRW 5934 Special Topics in Creative Writing (1-5). A course designed to give students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisites: CRW 2001 and three hours of CRW on the 3000/4000 level.

CRW 5935 Special Topics in Creative Writing (1-5). Gives students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisites: CRW 2001 and three hours of CRW on the 3000/4000 level.

CRW 5940 Advanced Independent Study in Creative Writing (1-5). Development and completion of a graduate level independent project in creative writing undertaken with the consent of the instructor. Prerequisites: Graduate standing and permission of the instructor.

CRW 6806 Teaching Creative Writing (3). The course will prepare graduate students (and teachers from secondary schools and community colleges) to teach introductory classes and workshops in Creative Writing. Students will observe and participate in the department's CRW 2001 courses. Prerequisites: CRW 3111, 3311, or graduate standing, or permission of the instructor.

CRW 6971 Creative Writing Thesis (3). Research and writing for the creative writing thesis. May be repeated. Prerequisite: 12 hours graduate CRW course work.

CRW 6972 Creative Thesis Continuance (1). Further guidance and direction for creative writing MFA candidates who have completed the two semester intensive sequence in CRW 6971. May be repeated.

ENG 5058 Form and Theory of Contemporary Literature (3). Various approaches and theories of practice in the major genres of imaginative writing, including development and articulation of the creative aesthetic. May be repeated. Prerequisite: Permission of the instructor.

Earth Sciences

Bradford Clement, *Professor and Chairperson*
William Anderson, *Associate Professor*
Laurel Collins, *Associate Professor*
Grenville Draper, *Professor*
Michael Gross, *Associate Professor*
Stephen Haggerty, *Distinguished Research Professor*
Rosemary Hickey-Vargas, *Professor*
Jose Longoria, *Professor*
Andrew Macfarlane, *Associate Professor*
Florentin Maurrasse, *Professor*
René Price, *Assistant Professor*
Edward Robinson, *Research Associate*
Gautam Sen, *Professor*
Neptune Srimal, *Lecturer*
Michael Sukop, *Assistant Professor*
Dean Whitman, *Associate Professor*
Hugh Willoughby, *Distinguished Research Professor*
Ping Zhu, *Assistant Professor*

The department offers the Master of Science Degree and Doctor of Philosophy Degree in Geosciences with opportunities for concentrated studies in structural geology/tectonics, igneous petrology/geochemistry/economic geology, hydrogeology and environmental geology, stratigraphy/sedimentology, paleobiology, paleoecology, geophysics/paleomagnetism and atmospheric sciences/meteorology. In addition, students may select a concentration in the regional geology of Southern Florida, the Caribbean, and Latin America, including problems related to the above-mentioned fields. Overall, the graduate program emphasizes a multidisciplinary approach to solving geologic and environmental problems, and stresses the importance of field observation complemented by laboratory analysis and numerical modeling.

The department is well-equipped with advanced and basic geological instrumentation. Major on-site analytical facilities are an electron microprobe and scanning electron microscope housed in the Florida Center for Analytical Electron Microscopy (FCAEM), two thermal ionization mass spectrometers (VG-354), inductively coupled plasma emission spectro-analyzer, and a paleomagnetism laboratory with cryogenic magnetometer. In addition the department owns a complete array of instruments for field geophysics and for field hydrologic studies, and two vehicles for transportation to local field sites. The department has facilities for micropaleontological studies, research in high pressure experimental petrology and experimental structural geology, a class 100 clean laboratory for processing isotopic samples, and a microscopy lab with heating/freezing stage for fluid inclusion studies. Excellent facilities for chemical analysis such as the stable isotope mass spectrometry lab, are available through formal connections with the Southeast Environmental Research Center.

Application Procedures

Admission decisions to the Program will be made by the Department's Graduate Admission Committee. To be considered for admission, applicants must submit the following documents prior to the admission deadlines.

1. FIU On-line Graduate Application Form (available at <http://gradschool.fiu.edu>)

2. Official transcripts of all college level work. When applicable, a certified English translation must accompany the original.

3. Graduate Record Examination and English proficiency (TOEFL and TSE) exam scores taken within the previous three years, sent from the Education Testing Service.

4. A resume with pertinent information regarding applicant's previous experience and achievements.

5. A statement of intent, including a brief discussion (not to exceed 2000 words) of educational goals and career projections. The applicant may also include a copy of previous written scientific work.

6. Three letters of recommendation from former professors or academic advisors..

Admission

To be admitted to the Graduate Programs in Geosciences, a student must meet the following minimum requirements:

1. Hold a Bachelor's or Master's degree from an accredited college or university in a relevant discipline of science, engineering or mathematics..

2. Have a grade point average (GPA) of 3.0 or higher (or equivalent) during the last two years of undergraduate program, and 3.0 or higher during the Master's degree program.

3. Have a minimum combined score on the verbal and quantitative sections of the Graduate Record Examination (GRE) of 1000 for the M.S. program or 1120 for the PhD program.

4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL, 550 on the paper-based TOEFL, 213 on the CBT TOEFL or 6.5 overall on the IELTS is required. A score of at least 50 on the Test of Spoken English (TSE) is required in order to be eligible for a teaching assistantship.

5. Meet the University's general requirements for admission to graduate programs. All application materials should be submitted by February 15 in order to be considered for Fall term admission and by September 1 for Spring term admission.

Financial Aid

The Earth Sciences Department offers a number of graduate teaching and research assistantships which are awarded each semester on a competitive basis. The assistantships provide a stipend and waiver of tuition, and are usually not awarded to students pursuing the Non-Thesis Track M.S. degree. Applicants interested in an assistantship should indicate this in the FIU Graduate Application form and their cover letter. Applicants seeking assistantships should contact individual faculty members in their area of research interest.

Master of Science in Geosciences

The Master of Science degree is conferred upon successful completion of the requirements (listed below) of either the Thesis Track or Non-Thesis Track option of the degree program.

Thesis Track: Course Requirements: 30 credits, including:

GLY 5931/GLY 6931, Graduate Seminars
 Courses in field of specialization
 Electives

2
18
4

GLY 6971, Thesis

6

Courses in the field of specialization and electives are chosen by the student in close consultation with a faculty advisor. These courses are selected to fit the student's particular professional goals and to ensure sufficient depth and breadth of geological knowledge.

Thesis Track: Graduation Requirements

1. A minimum GPA of 3.0 in all coursework counted toward the 30 credits required for the Master's degree.

2. Satisfactory completion and defense of a thesis proposal and an original research thesis.

Non-Thesis Track: Course Requirements:

30 credits, including:

Courses in field of specialization

18

Electives

12

Electives may include at most 3 credits of Supervised Research (GLY 6910) leading to a research paper.

Non-Thesis Track: Graduation Requirements:

A minimum GPA of 3.0 in all course work counted toward the 30 credits required for the Master's degree.

Accelerated Bachelor of Science/Master of Science in Geosciences

The accelerated BS/MS degree program in Geosciences allows qualified students to earn both degrees in a shorter amount of time than typically required for earning degrees sequentially. The accelerated program is designed for highly qualified undergraduate students in the Earth Sciences, allowing them to complete their MS degree within approximately 2.5 years after starting their second year.

Admission Requirements

- Current enrollment in the Bachelor of Science program in Geosciences at FIU.
- Completed at least 90 credits of coursework (including UCC and CLAST).
- Minimum GPA of 3.2.
- Minimum GRE (verbal + quantitative) score of 1000.
- Three letters of recommendation.
- Approval by the Earth Sciences Graduate Committee.

General Requirements

- Meet the requirements of both the BS and MS degree in Geosciences.
- Overlap: Up to 3 courses (9 credits) may be used in satisfying **both** the BS and MS degree requirements, which must be at the 5000-level or higher.

Doctor of Philosophy in Geosciences

The Doctor of Philosophy in Geosciences is conferred based on satisfactory completion of required course work, a demonstrated mastery of a broad field of knowledge, and the ability to conduct original and independent research. A minimum of 75 credit hours beyond the Bachelor's degree is required for the Ph.D. A minimum of 24 credit hours is devoted to research toward the Ph.D. Dissertation. A maximum of 36 graduate credit hours of formal lecture courses earned as part of a graduate degree from another accredited program may be transferred with the approval of the major advisor and Graduate Program Director.

Course Requirements

GLY 5931/GLY 6931, Graduate Seminars

2

Formal graduate level courses (non-research courses chosen in consultation with the major advisor)

30

GLY 7980, Ph.D. Dissertation

24

The remaining credits may be either formal graduate level courses or independent study and special projects, selected in consultation with the major advisor.

Graduation Requirements

1. A minimum GPA of 3.0 in all course work required for the Ph.D. degree.

2. Satisfactory performance on qualifying examinations on general geologic knowledge and the field of sub-specialization.

3. Successful presentation of a research proposal and oral examination before the dissertation committee in the candidacy examination.

4. Completion and successful defense of a dissertation.

Fields of Concentration

Geophysics/Paleomagnetism/Remote Sensing

Geophysical investigative techniques using remote sensing, gravity, magnetism, seismic reflection and refraction, earthquake seismology, and thermal properties. Land-based geophysical studies of the Caribbean and South American seismicity and crustal structure.

Hydrogeology/Environmental Geology

Field and modeling approaches to groundwater flow and solute fluxes in subsurface and near subsurface environments. Interaction of surface water and groundwater, solute transport, chemical and isotopic tracing techniques, watershed hydrology in south Florida, other U.S. locations, and Central America.

Igneous Petrology/Geochemistry/Economic Geology

Research problems in petrology/geochemistry of igneous and metamorphic rocks with reference to their origin, and relationships in time and space. Origin of hydrothermal and other economic deposits. Field occurrence, geochemistry and petrogenesis of crystalline rocks, especially those of the Caribbean region and South America. Generation of associated (often, economically significant) hydrothermal deposits. Application of trace element and isotope geochemistry to the study of these petrogenetic associations.

Paleobiology/Paleoecology

Research applied to taxonomy, phylogeny, evolutionary processes, paleoecology, taphonomy, and biostratigraphy as applied to select fossil groups. Zonal distribution, facies analysis, and paleoecology of different groups of fossils. Specialization may be in macrofossils or microfossils, applied to several aspects of the paleobiology of particular fossil groups, including biodiversity, paleoecology, response to global climatic changes, oceanographic or environmental and time relationships of selected organisms.

Regional Geology

Multidisciplinary geologic research applied to a specific geographic area.

Stratigraphy/Sedimentology

Sedimentary petrology, sedimentary environments, paleo-oceanography, sequence stratigraphy, cyclic stratigraphy, microfacies analysis, and basin analysis. Field and laboratory techniques applied to solution of problems in these topics, especially as applied to sedimentary rock sequences of south Florida, the Caribbean, and Meso-America. Evolution of the sedimentary basins of these regions and their relationships to global and regional tectonics.

Structural Geology – Tectonics

Field oriented research on methods of structural analysis. Analysis of geologic deformations based upon the principles of geometry, mechanics and utilizing research data from laboratory and field investigations of folds, fabrics, fracture, and faulting. Structural geology of the Caribbean and South America.

Course Descriptions

Note: Laboratories may not be taken prior to the corresponding lecture course. Laboratories must be taken concurrently where noted, but students must register for the laboratory separately.

Definition of Prefixes

EVS-Environmental Science; GEO-Geography/Systematic; GLY-Geology; MET-Meteorology; OCE- Oceanography; OCG-Oceanography-Geological; OCP-Oceanography/Physical.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ESC 5005 Earth Science Enrichment Activities for Teachers (1-2). Workshop presenting Earth Science enrichment activities to high school and middle school science teachers.

ESC 5162 Workshop: Microfossil Paleoenvironments (2). Recent foraminifera and diatoms are sampled, prepared and identified from marine to freshwater facies. Taxon distributions are used to interpret paleoenvironments. Prerequisite: Permission of the instructor.

GLY 5021 Earth Sciences for Teachers (3). Study of geological materials and processes, as covered in Physical Geology, but at a higher level and with additional assignments. Prerequisite: Permission of the instructor. Corequisite: GLY 5021L. (F,S,SS)

GLY 5021L Earth Sciences for Teachers Laboratory (1). Study of the properties of minerals and rocks; interpretation of topographic and geologic maps; study of the geology of Florida, including field trips. Prerequisite: Permission of the instructor. Corequisite: GLY 5021. (F,S,SS)

GLY 5060 Planet Earth: Dynamic Earth (1). Essentials of metamorphism, rock rheology, seismology, plate tectonics, plate boundaries, plate movement, continental rifting and evolution of mountain belts.

GLY 5107 Planet Earth: Evolving Earth (1). Essentials of lithostratigraphy, biostratigraphy, geologic time scale, modern sedimentological processes, sedimentary rocks, evolution and extinction events, paleoenvironments and paleoclimates.

GLY 5108 Paleoenvironments (3). Sedimentary environments, paleoecology of fossils, skeletal mineralogy, marine paleoenvironmental changes, global patterns of change through time. Prerequisite: Permission of the instructor.

GLY 5158 Florida Geology (3). Detailed lithostratigraphic and biostratigraphic analyses of Southeast Florida and their relationship to tectonics, paleoclimates. Prerequisites: GLY 4511 and GLY 4511L. (S in alternate years)

GLY 5159 Planet Earth: South Florida (1). Geology, water resources and geologic environments of South Florida.

GLY 5195 Topics in Paleoclimatology (3). Broad concepts in paleoclimatology are reviewed and discussed. Topics include climate models, Quaternary climates, dating and pre-Quaternary climates. Prerequisite: Permission of the instructor.

GLY 5245 Water-Rock Interaction (3). Survey of geochemical processes at the water-rock interface. Topics include absorption of inorganic and organic ions, colloid stability in groundwater, mineral dissolution and precipitation. Prerequisites: CHM 1046, MAC 3312, GLY 4822 or permission of the instructor.

GLY 5246 Geochemistry (3). **GLY 5246L Geochemistry Lab (1).** Origin of chemical elements and principles affecting their distribution in the solar system, solid earth and hydrosphere. Use of chemical data to solve geologic problems. Prerequisites: Physical Geology and General Chemistry. (S in alternate years)

GLY 5266 Stable Isotope Biogeochemistry (3). Application and theory of stable isotope approaches to biogeochemistry. Topics: Introduction to IRMS machines, C/N/O/H/S (biogeochem. processes), sampling/lab. prep., and recent advances. Prerequisites: One year of chemistry or permission of the instructor.

GLY 5283C Application of ICPES in Geochemistry (3). Determination of elemental abundances in rocks, soils, natural water using inductively coupled plasma emission spectroscopy (ICPES). Instrumental principles, sample selection and preparation methods and application of results to research. Prerequisites: CHM 1045, CHM 1046 or permission of the instructor. (S or SS)

GLY 5286 Research Instrumentation and Techniques in Geology (3). Survey of techniques and instrumentation used in geological research, including computing and data handling. Prerequisites: Graduate standing or permission of the instructor. Corequisite: GLY 5286L. (F)

GLY 5286L Research Instrumentation and Techniques in Geology Lab (1). Introduction to advanced instrumentation and analytical techniques in Geology, including computing and data processing. Prerequisites: Graduate standing or permission of the instructor. Corequisite: GLY 5286. (F)

GLY 5287C Scanning Electron Microscopy with EDS Analysis (3). Imaging and microanalysis of materials using SEM including EDS. Prerequisite: Permission of the instructor.

GLY 5288C Electron Microprobe Microanalysis with EDS Analysis (3). Imaging and analysis of geological and

other materials using electron microprobe with EDS analysis. Prerequisite: Permission of the instructor.

GLY 5298 Topics in Geochemistry (3). Seminar covering current research in selected areas of low-temperature geochemistry: oceans and oceanic sediments; continental waters and sediments; hydrothermal systems. Prerequisites: GLY 5246 or permission of the instructor. (F)

GLY 5322 Igneous Petrology and Geochemistry (3). Presentation and discussion of current topics in igneous petrology and geochemistry in a seminar format. Prerequisite: Permission of the instructor. (S)

GLY 5329 Planet Earth: Solid Earth (1). Essentials of the formation and evolution of the crust mantle and core of the earth. Composition and physical properties. Generation of magmas, their geochemistry.

GLY 5335 Metamorphic Geology (3). Metamorphic mineralogy; characteristics of low, medium and high pressure metamorphic rocks; pressure-temperature determinations; metamorphic textures; modeling and determination of P-T-t paths. (F)

GLY 5335L Metamorphic Geology Lab (1). Petrographic examination of metamorphic rocks. (F)

GLY 5346 Sedimentary Petrology (3). Systematic study of sedimentary rocks. Special emphasis on genetic aspects, geochemistry, paleontology, mineralogy, and microfacies. Emphasizes microscopic study. Prerequisite: GLY 4551. Corequisite: GLY 5346L. (F in alternate years)

GLY 5346L Sedimentary Petrology Lab (1). Laboratory studies of sediments and sedimentary rocks with emphasis on microscopic analyses and geochemical techniques. Prerequisites: GLY 4551 and GLY 4551L. Corequisite: GLY 5346. (F in alternate years)

GLY 5408 Advanced Structural Geology (3). Advanced treatment of the theory of rock mechanics to solve problems of natural rock deformation. Prerequisites: GLY 4400, MAC 3413, or permission of the instructor. Corequisite: GLY 5408L. (S)

GLY 5408L Advanced Structural Geology Lab (1). Problem solving in theory of rock deformation. Experimental procedures in rock mechanics. Corequisite: GLY 5408. (S)

GLY 5415 Caribbean Geology and Tectonics (3). Integration of geologic and geophysical data to understand the evolution and present tectonic configuration of the Caribbean area. Prerequisite: Permission of the instructor.

GLY 5425 Tectonics (3). Properties of the lithosphere; plate kinematics and continental drift; characteristics of plate boundaries; mountain belts; formation of sedimentary basins. Prerequisites: GLY 1010, 1100, 4400, 4300, 3202 or permission of the instructor. (S)

GLY 5455 Physical Volcanology (3). Description of volcanoes and their products, geophysical and tectonic constraints on volcanic processes, and modeling and forecasting of volcanic eruptions. Prerequisites: GLY 4450, GLY 4300 or permission of the instructor. (F in alternate years)

GLY 5457 Geophysical Data Analysis (3). Computer analysis and modeling of geophysical data and digital images. Statistical description of data, linear inverse theory, digital signal and image processing. Computer exercises with MATLAB. Prerequisites: GLY 4450, MAP 2302, MAS 3105, PHY 2048, PHY 2049 or permission of the instructor. Corequisite: GLY 5457L. (F)

GLY 5457L Analysis of Geophysical Data Lab (1). Field and laboratory applications of geophysical techniques. Computer aided analysis and three-dimensional modeling of gravity and magnetic data. Prerequisites: GLY 4450, PHY 2048, PHY 2049, MAC 2311, MAC 2312, MAP 2302. Corequisite: GLY 5457. (F)

GLY 5495 Seminar in Geophysics (3). Detailed investigation of current geophysical techniques, including topics on instrument design. Prerequisites: GLY 5457 or permission of the instructor. (S)

GLY 5497 Topics in Structural Geology and Tectonics (3). Selected advanced topics in structural geology and rock deformation. Latest advances in crustal tectonics. Prerequisite: GLY 5408. (S)

GLY 5599 Seminar in Stratigraphy (3). Discussion of research projects and/or current literature in stratigraphic correlation as derived from sedimentologic principles and biozonation. Prerequisite: GLY 5346. (F,S)

GLY 5608 Advanced Paleontology I (3). Discussion of current literature and research projects on evolution, systematics functional morphology, with reports by members of the seminar. Prerequisites: GLY 4650 or permission of the instructor. (F)

GLY 5621 Caribbean Stratigraphic Micropaleontology (3). Microscopic study of biostratigraphic type sections from the Caribbean area. Emphasis on planktonic foraminifera and radiolaria, paleoecologic and paleoclimatic interpretations. Prerequisites: GLY 4650 or permission of the instructor. (F)

GLY 5628 Radiogenic Isotope Methods (3). Theory and practice of radiogenic isotope ratio measuring techniques. Use of class-100 clean room facilities, and introduction to thermal ionization mass spectrometry. Prerequisite: General Chemistry.

GLY 5655 Topics in Paleobiology (1-3). Various concepts in paleobiology are reviewed and discussed, based on readings of the literature, including journal articles and books. Prerequisite: Permission of the instructor.

GLY 5710 Watershed Hydrology (3). Hydrologic processes on watershed, water budgets, effects on water quality, field investigative methods using tracers and hydrometric measurements, hydrologic and hydrochemical models.

GLY 5754 Applied Remote Sensing in the Earth Sciences (3). Application of remote sensing and image analysis in the earth sciences; qualitative and quantitative satellite image and air photo interpretation. Emphasis is on use of computer processing packages. Prerequisites: GLY 1010 or permission of the instructor.

GLY 5758 GIS and Spatial Analysis for Earth Scientists (3). Application of GIS technology to spatial problems in

the Earth Sciences. Topics include: spatial statistics, sampling theory, surface estimation, map algebra, and suitability modeling.

GLY 5785 Caribbean Shallow-Marine Environments (3). Field study of multiple tropical environments in the Caribbean area. Dynamic processes and coastal evolution in response to natural and human-induced changes.

GLY 5786 Advanced Field Excursion (3). A study of the geology of a selected region of the world followed by 10-12 day field trip in order to study the field relationships of the geologic features. Special emphasis is given to stratigraphic, structural and tectonic relationships of lithic package. Prerequisite: Permission of the instructor. (SS)

GLY 5808 Mining Geology (3). Application of theoretical models of ore formation to exploration and the use of geochemical and geophysical techniques in the search for ore deposits. Prerequisites: GLY 4300 and CHM 1046. (F)

GLY 5816 Economic Geology (3). Economically important metal deposits of sedimentary, igneous and hydrothermal origins and their geologic settings and characteristics. Prerequisites: GLY 1010, GLY 4300, CHM 1045, CHM 1046. (S)

GLY 5826 Hydrogeologic Modeling (3). Techniques used in modeling groundwater flow and solute transport in geologic systems. Case studies of significant aquifers. Prerequisites: GLY 5827, MAP 2302, or permission of the instructor. (S,SS)

GLY 5827 Hydrogeology (3). Physics of flow in geological media. Saturated and unsaturated flow, groundwater and the hydrologic cycle, estimating hydraulic parameters of aquifers, introduction to chemical transport. Prerequisites: GLY 1010, MAC 2312, and PHY 2053, or permission of the instructor. (F)

GLY 5827L Hydrogeology Lab (1). Laboratory, field, and computer exercises to complement GLY 5827. (F)

GLY 5828 Chemical Hydrogeology and Solute Transport (3). Quantitative analysis of hydrologic, geologic, and chemical factors controlling water quality and the transport and fate of organic and inorganic solutes in the subsurface. Prerequisite: GLY 5827. (S)

GLY 5834 Field Hydrogeology (3). Field methods in hydrogeology. Drilling, logging, wells, data loggers, hydraulic conductivity/transmissivity measurements, purging, field chemistry parameter measurements, sampling methods. Prerequisites: GLY 4822 or permission of the instructor.

GLY 5835 Introduction to Lattice Boltzmann Methods (3). The course will provide an introduction to Lattice Boltzmann methods for fluid dynamics simulation. Emphasis on multiphase fluids. Prerequisites: Programming skills, graduate standing, permission of the instructor.

GLY 5889 Geology for Environmental Scientists and Engineers (3). Characterization of rocks and rock masses; geological maps; seismic hazards; weathering of rocks; hydrologic cycle; slope stability; coastal processes; geophysical techniques. Course includes field trips in the South Florida region. Prerequisites: CHM 1045, GLY 1010 or permission of the instructor. (S)

GLY 5931 Graduate Seminar (1). Presentation or critical examination of current research problems in geology. A selection of topics is considered each term. Topics may also include individual research in the student's field of investigation. Prerequisites: Graduate standing or permission of the instructor. (F,S,SS)

GLY 6159 Stratigraphy of the Circum Caribbean Region (4). Detailed lithostratigraphic and biostratigraphic analyses of Caribbean islands, Central America, northern South America and Caribbean basin. Prerequisites: GLY 5621 or permission of the instructor. (SS)

GLY 6247 Trace Element and Isotope Geochemistry (3). Principles of trace element and isotope fractionation and radioactive decay, and their application to the interpretation of igneous rocks and the chemical evolution of the earth. Prerequisites: GLY 5246 or permission of the instructor. Corequisite: GLY 6247L. (S)

GLY 6328 Advanced Igneous Petrology (3). Interpretation of igneous rocks; chemistry and physics of magma generation and crystallization; origin of major igneous rock series with emphasis on tectonic controls. Prerequisite: Permission of the instructor. Corequisite: GLY 6328L. (S)

GLY 6328L Advanced Igneous Petrology Lab (1). Identification of rocks using microscopic and microprobe techniques. Prerequisite: Permission of the instructor. Corequisite: GLY 6328. (S)

GLY 6337 Metamorphic Phase Equilibria (3). Theory and methods of calculation of metamorphic phase equilibria and P-T paths using appropriate analysis of composition space, activity models, geothermometry, geobarometry. Origin and interpretation of zoning in metamorphic minerals. Prerequisites: GLY 5335 or permission of the instructor. (F)

GLY 6345 Sedimentary Petrography (3). Comparative study and fundamental observations of sedimentary rocks in hand specimens and under the petrographic microscope; their classification, theoretical and practical implications. Prerequisites: GLY 4551 or permission of the instructor. (F)

GLY 6345L Sedimentary Petrography Laboratory (1). Laboratory studies of sedimentary rocks in thin section. Prerequisites: GLY 4551 or permission of the instructor. Corequisite: GLY 6345. (F)

GLY 6353 Microfacies Analysis (3). **GLY 6353L Microfacies Analysis Laboratory (1).** Identification and interpretation of the fossil and mineralogical constituents of sedimentary rocks in thin section. Emphasis is placed on the paleoecological significance of fossil remains in carbonates. Prerequisites: GLY 4551 or permission of the instructor. (S)

GLY 6392 Topics in Igneous Petrology and Geochemistry (3). Research seminar in contemporary petrology and geochemistry. Student presentation on thesis research. Prerequisites: GLY 5322 or permission of the instructor. (F,S)

GLY 6427 Quantitative Geotectonics (3). Application of continuum mechanics and heat transfer to problems in geology. Observational constraints on earth properties. Emphasis is on problems relating to the earth's

lithosphere. Prerequisites: GLY 4450, GLY 4400, GLY 5425 and MAP 2302 or permission of the instructor. (F in alternate years)

GLY 6444 Quantitative Analysis of Joints and Faults (3). Application of fracture mechanics to geologic problems, including the analysis of local and regional stress fields, bedrock fracture systems, estimation of fracture related strain, and the influence of mechanical properties on rock failure. Prerequisites: GLY 4400, GLY 4450, GLY 5425 or permission of the instructor. (F in alternate years)

GLY 6447 Advanced Topics in Structural Geology and Tectonics (3). Detailed exploration of selected research topics in structural geology and tectonics. Prerequisites: GLY 5408 or permission of the instructor. (F,S)

GLY 6448 Stress in the Earth's Crust (3). The distribution and magnitude of stress in the earth's crust, laboratory derived values for earth stress, in situ stress measurements, regional stress patterns and sources of stress in the lithosphere. Prerequisites: GLY 4400, GLY 4450, GLY 5425 or permission of the instructor. (S)

GLY 6468 Paleomagnetism (3). Physics of rock and mineral magnetism, geomagnetism and paleomagnetism; field and laboratory methods, geomagnetic field behavior, magnetostratigraphy, apparent polar wander. Prerequisites: GLY 4400, GLY 3202 or permission of the instructor. Corequisite: GLY 6468L. (F)

GLY 6468L Paleomagnetism Laboratory (1). Physics of rock and minerals magnetism, geomagnetism and paleomagnetism; field and laboratory methods, geomagnetic field behavior, magnetostratigraphy, apparent polar wander. Prerequisites: GLY 4400, GLY 3202 or permission of the instructor. Corequisite: GLY 6468. (F)

GLY 6485 Physics of the Earth (3). Properties and dynamics of the Earth's interior studied from a physical perspective. Topics include heat flow, fluid flow, earthquake seismology. Prerequisites: GLY 4450 and MAC 2313. (F)

GLY 6496 Advanced Topics in Geophysics (3). Discussion of research projects and current literature in geophysics. Prerequisite: GLY 5495. (S)

GLY 6517 Basin Analysis (3). Analysis of sedimentary basins based on their origin, paleogeographic evolution and tectonic setting. Emphasis is placed on the tectonic evolution and economic potential of sedimentary basins. (S in alternate years)

GLY 6517L Basin Analysis Lab (1). Analysis of different types of sedimentary basins using a case history approach. Corequisite: GLY 6517. (S in alternate years)

GLY 6595 Topics in Sedimentology (3). Oral presentation by students of research projects and survey of relevant literature with reports by members of the seminar. Prerequisite: GLY 5346. (S in alternate years)

GLY 6626 Stratigraphic Micropaleontology: Foraminifera (3). Nomenclature, taxonomy, and biostratigraphy of Cretaceous and Cenozoic planktonic foraminifera. Studies of stratigraphically important taxa from Caribbean land sections, piston cores, and

DSDP/ODP sites. Prerequisites: GLY 5621 or permission of the instructor. (F in alternate years)

GLY 6627 Stratigraphic Micropaleontology: Radiolaria (3). Nomenclature, taxonomy and biostratigraphy of Cretaceous and Cenozoic radiolaria. Studies of stratigraphically important taxa using Caribbean land sections, piston cores, and DSDP/ODP sites. Prerequisites: GLY 5621 or permission of the instructor. (S in alternate years)

GLY 6628 Stratigraphic Micropaleontology: Calcareous Nannofossils (3). Nomenclature, taxonomy, and biostratigraphy of triassic to recent nannofossils. Intensive training of identification of marker taxa using land and DSDP/ODP sites. Prerequisites: GLY 5621 or permission of the instructor. (S in alternate years)

GLY 6690 Topics in Paleontology (3). Oral presentation and discussion of current research projects and relevant literature, with reports by members of the seminar. Prerequisites: GLY 5608 or permission of the instructor. (F)

GLY 6809 Hydrothermal Geochemistry (3). The mineralogy, thermodynamics, chemistry and isotope chemistry of hydrothermal and geothermal systems, with an emphasis on the transport of solutes in hydrothermal solutions and ore-forming processes. Prerequisites: GLY 5246, CHM 3400 or permission of the instructor. (S in alternate years)

GLY 6817 Topics in Economic Geology (3). Current research directions in Economic Geology and Geochemistry, including ore formation processes, exploration and remediation.

GLY 6862 Numerical Methods in the Earth Sciences (3). Numerical techniques used by geoscientists, with emphasis on finite-difference and finite-element techniques to solve equations governing fluid flow and mass transport in geological systems. Prerequisites: MAP 2302, GLY 5827 and knowledge of one programming language or permission of the instructor.

GLY 6896 Advanced Topics in Hydrology (1-3). Research-oriented seminar course involving analysis of several contemporary topics chosen from the current literature in hydrology. Specific topics vary. May be repeated. Prerequisites: GLY 5827 and one other graduate level hydrology/hydrogeology course, or permission of the instructor. (S in alternate years)

GLY 6910 Supervised Research (1-12). Research apprenticeship under the direction of a professor or a thesis advisor. Prerequisites: Full graduate admission and permission of the instructor.

GLY 6931 Advanced Graduate Seminar (1). Oral presentation and discussion by students of an assigned literature survey, with reports by members of the seminar. Prerequisites: GLY 5931 or permission of the instructor. (F,S)

GLY 6941 Supervised Teaching in the Geosciences (1). Teaching a geological discipline under the supervision of departmental faculty. Prerequisite: Graduate standing.

GLY 6945 Proposal Writing (1). A graduate course aimed at introducing students to grant proposal writing.

GLY 6949 Professional Internship in Earth Science (1-3). Semester or summer term of supervised work at an approved government or industry laboratory or field station. Prerequisite: Graduate standing.

GLY 6966 Master's Comprehensive Examination (0). Oral and written examinations on knowledge in general geology and the student's field of concentration. Schedule to be selected in consultation with the Graduate Committee. Prerequisite: Advanced graduate standing. (F,S,SS)

GLY 6971 Master's Thesis (1-12). Field and/or laboratory research project toward thesis. Selected in consultation with major professor. Prerequisite: Permission of the major professor. (F,S,SS)

GLY 7980 Ph.D. Dissertation (1-12). Field and/or laboratory research directed towards completion of the doctoral dissertation. Selected in consultation with major professor. Prerequisite: Permission of the Major Professor and Doctoral Candidacy. (F,S,SS)

OCG 6105 Advanced Marine Geology (3). OCG 6105L Advanced Marine Geology Lab (1). Application of geophysical and geological data to the interpretation of the earth's crust under the oceans, including the data provided by the Deep-Sea Drilling Project, dredging, piston-coring, gravity magnetism, and seismicity. Special emphasis will be given to the genesis and evolution of the Atlantic and Caribbean margins, and their potential for oil resources. Prerequisites: GLY 4730 or permission of the instructor. (F in alternate years)

OCG 6664 Paleooceanography (3). Mesozoic/Cenozoic development of the major ocean basins, their circulation and sedimentation history. Use of micropaleontologic and stable isotopic techniques in paleoceanographic analysis. Prerequisites: GLY 4730 or permission of the instructor. (F in alternate years)

Economics

John H. Boyd III, *Associate Professor and Chairperson*

Nejat M. Anbarci, *Professor*

Jeffrey Bernstein, *Professor*

Mahadev Bhat, *Associate Professor (joint appointment with Environmental Studies)*

Prasad V. Bidarkota, *Associate Professor*

Jesse Bull, *Assistant Professor*

Joel Carton, *Lecturer*

Manuel J. Carvajal, *Professor*

Richard A. Chisik, *Associate Professor*

Irma de Alonso, *Professor*

Alan Gummerson, *Lecturer*

Antonio Jorge, *Professor Emeritus, Political Economy*

Cem Karayalcin, *Professor*

Jungmin Lee, *Assistant Professor*

Panagis Liossatos, *Professor*

Mihaela Pinte, *Assistant Professor*

Jorge Salazar-Carrillo, *Professor and Director, Center for Economic Research and Education*

Peter Thompson, *Professor*

Mira Wilkins, *Professor*

Maria Willumsen, *Associate Professor*

The Department of Economics has a group of faculty who are interested in a variety of applied and theoretical topics. The graduate programs in Economics place strong emphasis on exploiting synergies between fields such as international economics, industrial organization, and technological change, and development economics (including Latin American and Caribbean studies as well as regional development problems). Issues are analyzed using modern economic tools from fields such as econometrics, game theory, and economic dynamics. While these are the department's areas of greatest emphasis, graduate course work in other fields can also be undertaken. The department's graduate programs are further enhanced by the presence of complementary graduate programs in the College of Arts and Sciences, College of Business Administration, the College of Social Work, Justice, and Public Affairs, and the Latin American and Caribbean Center.

The Master's Program provides additional training in economics beyond the undergraduate degree. It provides a degree of expertise that would not be obtained in an undergraduate education. This additional expertise enhances your prospects for a successful career in the private sector, and in governmental or international agencies.

The objective of the Doctoral Program is to offer advanced training in economic analysis. It provides an excellent background for a professional career at academic institutions, in the private sector, or in governmental and international agencies.

Master of Arts in Economics

To be admitted into the Master's degree program in Economics, a student must meet the University's graduate admission requirements and:

1. Have a Bachelor's Degree from an accredited institution.
2. Have a 'B' average (3.0) or higher during the last two years of undergraduate studies, and a minimum combined score (verbal + quantitative) of 1,000 or higher on the Graduate Record Examination (GRE), which every

candidate must take. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

3. Receive approval of the departmental graduate committee.

4. Have taken as prerequisites statistics and calculus. A student who has not fulfilled all these prerequisites may be admitted on a provisional basis. Unless specifically exempted, the student must take these courses as required, obtaining no credit for them in the program.

Master's Tracks

The Department of Economics offers two tracks: A general economics track, and a track specializing in applied economics. Although the general requirements are the same for both tracks, students opting to follow the applied economics track must write a Master's Thesis, take a fourth core course, and include four of the applied track courses listed below among their electives. The applied track courses are also open to students following the general economics track.

Degree Requirements

The Master's degree program will consist of 30 semester hours of course work, at a graduate level (course numbers 5000 or above). A maximum of six semester hours may be transferred into the program subject to the approval of the graduate committee. All courses listed below carry 3 credits, except the thesis (6 credits). The specific requirements are:

Core Courses

All Master's students must take the following three courses

ECO 6112	Fundamentals of Graduate Microeconomics	3
ECO 6204	Fundamentals of Graduate Macroeconomics	3
ECO 7424	Econometric Methods I	3

Research Requirements: (3-6 credits)

Students following the general economics track must either write a thesis for 3-6 credits (ECO 6971), or take an advanced course in applied economics (7000-level or approved by the Graduate Director) which involves writing a research paper (3 credits). Students taking the applied economics track must write a thesis for 3-6 credits (ECO 6971).

Electives: (15-18 credits)

A student must take at least four electives in economics. The additional one or two courses required to complete the Master's program may be taken in Mathematics, International Studies, the College of Business Administration, the College of Social Work, Justice, and Public Affairs, or in the other college or schools of the University. The graduate director must approve courses taken outside the department. ECP 6705 and ECP 6715 do not count as electives.

Additional Applied Track Courses

An M.A. student wishing to follow the applied economics track will be required to take, in addition to the three core courses above, a fourth core course:

ECO 6416	Applied Quantitative Methods in Economics	3
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Applied track students must choose their remaining four electives from the following courses:

ECP 6305	Advanced Environmental Economics	3
ECS 5027	Economics of Emerging Nations	3
ECP 5704	International Economic Problems and Policy	3
ECO 6225	Economics of Asset Markets	3
ECO 7236	Money, Banking and Monetary Policy	3

Graduation Requirements

To receive the Master's degree in Economics, the student must complete 30 hours of course work with a 'B' (3.0) average or higher; must receive a least a 'B' (3.0) in the core courses; and must receive a grade of 'C' or higher in each course. If the student decides to write a thesis, he/she must receive the grade of 'P' (pass) for ECO 6971.

Combined Bachelor of Arts/Master of Arts in Economics

The Bachelor of Arts/Master of Arts (BA/MA) degree in Economics program is designed for outstanding undergraduate students. It provides a strong base of knowledge and skills economics, and at the same time accelerates completion of the Master of Arts degree. Students may take advantage of the overlap of courses in the BA and MA programs to receive their MA degrees in a shorter period than it would otherwise be possible. The incentive to do so is expected to attract students, who would otherwise not be so inclined, into the MA program. The introduction to graduate work that the MA program affords has proven to be a gateway to the PhD program for so many students in the past. This would enable the department to increase its contribution to the University's goal of graduating more PhD students.

The BA program in economics requires that students take 9 upper division elective courses. Students in the BA/MA program would take elective courses that would satisfy both the BA and MA requirement.

The goal is to attract students so that they apply to the program as early as the second semester of their sophomore year. To apply their GPA needs to be significantly above average (3.25). Students would also be required to maintain a high GPA (3.0) to remain in the program. The grade requirements for an MA in economics would apply to courses that are counted toward the MA degree. The BA/MA program in economics (like similar programs in institutions such as the New York University and Boston University) waives the GRE requirement in application.

Admission Requirements

- Current enrollment in the Bachelor degree program in Economics at FIU.
- Completed at least 60 credits of coursework.
- Completed Calculus I (MAC 2311) and Calculus II (MAC 2312) or equivalents.
- Minimum GPA of 3.25 or higher.
- Three letters of recommendation.
- Approval of the Graduate Committee.

General Requirements

Meet the requirements of both the BA and the MA degree in Economics.

Overlap: Up to 4 courses (12 credits) may be used in satisfying **both** the Bachelor's and Master's degree requirements in economics.

Doctor of Philosophy in Economics

The admission requirements to the Ph.D. program in Economics are:

1. Have a Bachelor's Degree from an accredited institution.

2. A minimum GPA of 3.0 for the last two years of undergraduate education and a minimum combined score (verbal + quantitative) at or above the 60th percentile (1120) on the Graduate Record Examination (GRE), which every candidate must take. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

3. Three letters of recommendation, using the form provided by the Department, from people in a position to judge the applicant's suitability for graduate studies in economics.

4. Receive approval of the departmental graduate committee.

5. Completion of the following courses at the undergraduate level: statistics, two semesters of calculus, and a semester of linear algebra. Unless exempted, the student must take these courses as required, obtaining no graduate credit for them in the program.

The GRE and GPA stated above are minimum requirements. All applications are reviewed by the Graduate Studies Committee, which makes the final admission decisions. Since admission to the program is competitive, the committee's requirements are normally higher than the minimum standards. Meeting the minimum requirements does not guarantee admission.

Degree Requirements

To obtain the Ph.D. in Economics, students must complete the required course work and fulfill dissertation requirements.

Course work Requirements

Students must complete 45 hours (15 courses) of graduate level course work. Supervised research, independent study, seminars, and dissertation credit do not count towards this objective.

This required minimum of 15 courses consists of eleven courses in the Core and four field courses.

No credit toward a graduate degree is given for any course in which a grade of 'C' or less is obtained. A graduate student who receives a grade lower than 'B-' in a course must retake that course; if a retake also results in a grade lower than 'B-', the student will not be permitted to continue in the Ph.D. Program. A graduate student who receives a grade lower than 'B-' in more than two courses will not be allowed to stay in the Economics Ph.D. Program.

Students are required to maintain a minimum GPA of 3.0 (of 4) in their coursework.

Core Courses

ECO 6112	Fundamentals of Graduate Microeconomics	3
ECO 7115	Microeconomic Theory I	3

ECO 7116	Microeconomic Theory II	3
ECO 6204	Fundamentals of Graduate Macroeconomics	3
ECO 7206	Macroeconomic Theory I	3
ECO 7207	Macroeconomic Theory II	3
ECO 7405	Mathematical Methods in Economic Analysis I	3
ECO 7xxx	Mathematical Methods in Economic Analysis II	3
ECO 7424	Econometric Methods I	3
ECO 7425	Econometric Methods II	3
ECO 7xxx	Econometric Methods III	3

Core Study

During the first four semesters, students are required to take courses which include the eleven core courses listed above. Following the second semester, students are required to pass a comprehensive qualifying examination on core theory—the first four core courses listed above. A student who fails twice will not be allowed to remain in the program. A student must receive at least a 'B' (3.0) average in the first four courses in order to participate in the comprehensive core theory qualifying examination.

Field Study

During the fourth and fifth semesters, students will complete course work in four field courses. Students must write a field paper. The field paper must be completed, presented in a workshop, and accepted by the student's field paper committee by the end of the third year. Students who fail twice their field requirements will not be allowed to continue in that field.

Dissertation Work

Upon completion of field paper requirement, students will be required to choose a specific area of doctoral research. During this phase, which will normally have a total length of two years, the student will:

- Conduct research and complete a dissertation
- Continue taking courses to complete a minimum of 12 credits of Advanced Workshop and 18 credits of dissertation.
- Attend Advanced Workshops by enrolling in ECO 7925 in the dissertation area and present at least one paper a year on the work in that workshop.

Students will normally be required to be enrolled as full-time students at the University for at least a year during the dissertation period. Except under abnormal circumstances, the maximum number of years during which a student may do dissertation work is five years.

Graduation Requirements

To graduate, students must complete all course requirements; fulfill workshop presentation requirements; pass the comprehensive examination and have their field paper accepted, and complete the oral defense and acceptance of the Ph.D. dissertation.

Course Descriptions

Definition of Prefixes

ECO-Economics; ECP-Economic Problems and Policy; ECS-Economic Systems and Development.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ECO 5709 The World Economy (3). Designed to give an overview of the crucial issues in the world economy. The course covers trade, capital, labor, and technology flows; transnational economic organizations; current economic crisis; global economic interdependence; and the nature and characteristics of international economic order. Required for MIB Program. (S)

ECO 5735 Multinational Corporations (3). Economic theory and multinational corporations. Economic effects. Consequences of nationalization. Spread of the multinational form. State-owned multinational corporations. Prerequisite: Permission of the instructor for undergraduates. (S)

ECO 5906 Advanced Individual Study (1-6). Supervised readings, individual tutorial, and preparation of report. Requires consent of faculty supervisor and Department Chairperson. Open to seniors and graduate students.

ECO 5945 Internship (3). Directed individual study which assists the student in using economic analysis in his employment. Prerequisite: Permission of the chair.

ECO 6076 Teaching Economics (1). This course, required of all graduate assistants, is designed to introduce students to the pedagogical and practical aspects of teaching economics. It is coordinated with the Academy for the Art of Teaching.

ECO 6112 Fundamentals of Graduate Microeconomics (3). Consumer choice and theory of firm using calculus and diagrams with standard applications; Introduction to choice under uncertainty; Introduction Game Theory (Nash Equilibrium); Partial Equilibrium; Market Structures: Perfect Competition, Monopoly and Oligopoly; Market Failures. Prerequisites: One semester of Calculus and Statistics.

ECO 6204 Fundamentals of Graduate Macroeconomics (3). Consumption, investment and growth; equity premium puzzle; taxation and social security; monetary policy rules, currency and inflation; the IS-LM model; real business cycles and models with nominal rigidities. Prerequisites: Calculus and Statistics.

ECO 6225 Economics of Asset Markets (3). Economic analysis of the asset markets; risk, return and intertemporal choice; mean variance analysis; asset pricing models and properties of asset returns; market efficiency and market anomalies. Prerequisites: Calculus or permission of the instructor.

ECO 6416 Applied Quantitative Methods in Economics (3). Types of economic data; the WWW as a tool for data collection; database construction and maintenance; use of statistical software for graphical and descriptive methods; large sample inference for one population mean vector; introduction to economic time series and regression models. Prerequisites: One semester of Calculus and Statistics or permission of the instructor.

ECO 6936 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 6938 Individual Graduate Study (6-9). Supervised readings, tutorial, and preparation of report. Open only to graduate students. Requires consent of supervisor and approval of Department Chairperson.

ECO 6939 Advanced Seminar in Applied Economics

(3). Variable-topic study group in application of economic analysis to specific problems. Open to seniors and graduate students. (S)

ECO 6971 Thesis (6).

Writing and completion of thesis by candidate for a Master of Arts. Prerequisites: Student must be a Master's degree candidate, have had at least 15 hours of graduate work in economics; have a thesis topic approved by the Department's Graduate Committee and permission from the instructor.

ECO 7115 Microeconomic Theory I (3).

Models of consumer and producer behavior, partial equilibrium analysis of product and factor markets, two/sector models of general equilibrium and welfare economics. Prerequisites: ECO 3101 or equivalent, Calculus I; Calculus II recommended. (F)

ECO 7116 Microeconomic Theory II (3).

The Hicks/Samuelson and Arrow/Debreu models of general equilibrium. Activity analysis and competitive equilibrium. Capital theory. Leontief/Sraffa/Marx Systems. Temporary equilibrium and money. Prerequisites: ECO 7115 and ECO 7405. (S)

ECO 7118 Graduate Seminar in Economic Theory (3).

Variable-topic graduate study group in theoretical problems. Open only to students with graduate standing.

ECO 7135 Growth, Distribution and Prices (3).

Alternative theories of growth, income distribution and prices. Basic growth models; neoclassical capital theory and Cambridge controversies; neo/Marxian, neo-Keynesian and other approaches. Prerequisites: ECO 7116, ECO 7207, ECO 7405.

ECO 7136 Classical and Marxian Economic Theory (3).

Classical and Marxian theories of value and capital in a mathematical mode. The Transformation Problem. Simple and expanded reproduction. The falling rate of profit and other Marxian crises. Prerequisites: ECO 7115, ECO 7206, ECO 7405, ECO 7116.

ECO 7206 Macroeconomic Theory I (3).

Analysis of macroeconomic models of income determination and the price level, microeconomic foundations of macro-behavior, macroeconomic models, and basic open economy macroeconomics. Prerequisites: ECO 3203, ECO 4410, or equivalents; Calculus I; Calculus II recommended. (F)

ECO 7207 Macroeconomic Theory II (3).

Alternative approaches to macroeconomic theory. Business cycle theories and theories of growth and income distribution. Prerequisites: ECO 7115, ECO 7206, ECO 7405.

ECO 7216 Monetary Theory and Policy (3).

Relationship of money supply and interest rate to economic stabilization. Consideration of federal reserve system, money market, and factors determining money supply and demand. Neo-Keynesian, Chicago, and radical policy views.

ECO 7236 Money, Banking, and Monetary Policy (3).

Monetary theory and its application. Consideration of central banking in the U.S. and its relation to the international economy, money markets, and financial intermediaries. Survey of current policy views.

ECO 7305 History of Economic Thought (3).

Exploration of the evolution of economic thought and analysis in the changing socio/historical, institutional and political setting in which it takes place. Prerequisite: Permission of the instructor. (S)

ECO 7405 Mathematical Methods in Economic Analysis (3).

Application of mathematical methods to economics. The topics and tools of mathematical economics are presented in a rigorous fashion within an economic context. Prerequisites: Calculus I, ECO 3101 and ECO 3203, or equivalents. (F)

ECO 7424 Econometric Methods I (3).

Practical and theoretical foundations of empirical economics. Knowledge in formulation, estimation, and evaluation of econometric models. Prerequisites: ECO 4410 or equivalent; ECO 7423, Calculus I; Calculus II recommended. (S)

ECO 7425 Econometric Methods II (3).

A continuation of ECO 7424. Advanced single equation estimation, estimation of distributed lags, simultaneous equations, time series and models of qualitative choice. Prerequisites: ECO 7424 and MAS 3103 or equivalent. (F)

ECO 7429 Topics in Econometrics (3).

Selected topics in econometrics. Intended to acquaint students with current research in the field. Material covered will vary from year to year with instructor. Prerequisites: ECO 7424 and ECO 7425.

ECO 7505 Public Finance (3).

Partial and general equilibrium analysis of tax incidence efficiency, public goods, public pricing problems, the social rate of discount, and non-market decision making.

ECO 7617 Seminar in Economic History (3).

Topics in economic history, exploration of the economic history literature on a selected theme, student presentations. Prerequisite: Permission of the instructor for undergraduates.

ECO 7705 International Trade (3).

Positive and normative aspects of international trade. Theories of comparative advantage, commercial policy, trade and income distribution. Prerequisites: Advanced Microeconomic Theory; Calculus. (F)

ECO 7716 International Money (3).

Theory of international monetary equilibrium. Problems of international payments and exchange rate control; their effect on international monetary problems. Analysis of short and long term monetary flows and macroeconomic adjustment. Prerequisites: Advanced Macroeconomics and Calculus. (S)

ECO 7925 Advanced Workshop (3).

Enables students to attend advanced workshop presentations and to present the results of their own research. Prerequisite: Completion of field examination requirements. (F,S)

ECO 7980 Ph.D. Dissertation (1-12).

To be taken every semester for research on, and writing of Ph.D. dissertation by candidates for the Ph.D. Prerequisite: Permission of Major Professor and Doctoral Candidacy.

ECP 5707 International Economic Problems & Policy (3).

International trade and comparative advantage; commercial policy; foreign exchange markets; balance of

payments; issues in trade & development. Prerequisites: ECO 2013 or ECO 3011, and ECO 2023 or ECO 3021.

ECP 6305 Advanced Environmental Economics (3). Economics of environmental pollution; theories of exhaustible and renewable resource extraction; issues in environmental valuation and policies. Prerequisites: ECP 3101 and ECP 3302 or ECP 4314 or permission of the instructor.

ECP 6434 Macroeconomic Forecasting for Management (3). Basic macroeconomics concepts as they apply to decision making within the firm. Traditional models of income determination and forecasting analysis. Prerequisite: ECP 6705. (F,S,SS)

ECP 6605 Urban and Regional Analysis (3). Application of economic analysis to urban growth and the urban/regional environment. Consideration of public services, transportation, ghetto problems, and urban organization. Analysis of environmental protection problems and policies. Recommended preparation: ECO 3101, ECO 3203 and ECP 3303.

ECP 6705 Managerial Economics (3). Basic microeconomic concepts as they apply to decision making within the organization; supply and demand; market structure and market behavior in specific industries. Recommended Preparation: Principles of Microeconomics and Calculus. Prerequisites: ECO 3021 and ECO 3011. (F,S,SS)

ECP 7035 Cost-Benefit Analysis (3). This course covers benefit-cost analysis, cost-effectiveness analysis, benefit-risk analysis, risk-risk analysis, and systems analysis. All of these techniques are designed to provide guidance to decision makers, particularly in the government sector. Prerequisite: ECO 3101.

ECP 7205 Labor and Human Resources (3). Empirical and theoretical analysis of the factors determining employment and earnings, recent developments in the theory of labor supply, critiques of neoclassical theory, and current issues in public policy. Prerequisite: Calculus.

ECP 7405 Industrial Organization (3). The organization of the industrial economy with particular emphasis as to the type of competition, the bases of monopoly power and the extent of monopoly power. Prerequisites: Advanced Micro and Calculus.

ECP 7606 Urban and Regional Economics (3). The economics of urbanization processes, internal organization of cities, and regional settlement. Spatial growth models and spatial development planning. Prerequisites: ECO 7115, ECO 5205, ECS 4013 or equivalent; and ECO 6636. (F)

ECP 7636 Location Theory (3). Systematic exposition of urban and industrial location theory. Spatial price theory and spatial competition. Prerequisites: ECO 3101 or equivalent; Calculus I; Calculus II and ECO 7115 recommended. (S)

ECP 7706 Managerial Economics (3). Analysis of the economic decisions of firm managers, emphasizing the practical application of concepts to economic problem solving by managers, public administrators and other decision makers. Prerequisites: Ph.D. or advanced Masters.

ECS 5005 Comparative Economic Systems (3). A critical evaluation of the design, goals, and achievements of economic policies in capitalist and socialist economies. Prerequisite: Permission of the instructor for undergraduates.

ECS 5025 Economic Planning (3). Analysis of planning methods in capitalist and socialist economies. Evaluation of macro and micro economic planning tools (input-output) and programming techniques. Theory and practice of economic development planning of agriculture, industrialization, foreign trade, and manpower. Prerequisites: Graduate standing or permission of the instructor.

ECS 5027 Economic Development of Emerging Nations (3). Specific economic problems of emerging nations and national groupings. Basic approaches to economic development; major proposals for accelerating development. Role of planning. Trade, aid, and economic integration. (F)

ECS 5406 Latin American Economies (3). Economic theory and its applications to current economic issues of Latin America. Examines aggregate demand and supply, fiscal and monetary policies, international trade trends, and economic development. Taught in Spanish. May not be taken for credit towards a degree in Economics.

ECS 6436 The Economics of Caribbean Migration (3). The course examines the economic causes and consequences of Caribbean immigration to the United States. Special emphasis on the effects of Caribbean migration on the United States economy.

ECS 7015 Development Economics: Theory (3). Analytical approaches to economic development. Analysis of macro models, specific resources and sectors, and trade and income distributional problems in relation to developing countries. Prerequisites: ECO 7115 and ECO 7116 or equivalents. (F)

ECS 7026 Development Economics: Planning and Policy (3). Planning and policy making in developing economies. Economy-wide planning models; project appraisal; financial, stabilization and trade policies. Prerequisites: ECO 7115, ECO 7116, and ECO 7405. (S)

ECS 7405 Economics of Latin America (3). Dependence, population explosion, urban migration, agricultural reform, industrialization and import substitution, common markets. Prerequisite: Permission of the instructor for undergraduates.

ECS 7435 Economics of the Caribbean (3). Macroeconomic assessment; income distribution, employment and migration; industrial and agricultural development; international trade, multinational and integration attempts. Prerequisite: Permission of the instructor.

ECS 7445 Economics of Central America (3). Recent economic events in the region dealing with institutional background and structure of current economic activities. Special emphasis on problems of growth, social transformation and economic integration. Prerequisite: Permission of the instructor. (F)

English

Carmela Pinto McIntire, *Associate Professor and Chairperson*

Joan L. Baker, *Associate Professor*

Lynne Barrett, *Professor*

Lynn M. Berk, *Professor Emerita*

Steven Blevins, *Assistant Professor*

Nathaniel Cadle, *Assistant Professor*

Gisela Casines, *Associate Professor and Associate Dean*

Maneck Daruwala, *Associate Professor*

Carole Boyce Davies, *Professor*

Vernon Dickson, *Assistant Professor*

John Dufresne, *Professor*

Denise Duhamel, *Associate Professor*

Paul Feigenbaum, *Assistant Professor*

James Hall, *Professor*

Kimberly Harrison, *Associate Professor*

Bruce Harvey, *Associate Professor*

Marilyn Hoder-Salmon, *Associate Professor*

Tometro Hopkins, *Associate Professor*

Kenneth Johnson, *Associate Professor Vice Provost of Academic Affairs*

Anna Luczynska, *Assistant Professor*

Kathleen McCormack, *Professor*

Campbell McGrath, *Professor*

Kathryn McKinley, *Associate Professor*

Phil Marcus, *Professor*

Asher Z. Milbauer, *Professor and Director of Graduate Studies in Literature*

Jason Pearl, *Assistant Professor*

Yvette Piggush, *Assistant Professor*

Meri-Jane Rochelson, *Professor and Associate Chairperson, Biscayne Bay Campus*

Richard Schwartz, *Professor*

Lester Standiford, *Professor and Director of Creative Writing Program*

Andrew Strycharski, *Assistant Professor*

Richard Sugg, *Professor*

James Sutton, *Associate Professor*

Ellen Thompson, *Associate Professor*

Dan Wakefield, *Writer in Residence and Lecturer*

Donald Watson, *Professor Emeritus*

Donna Weir-Soley, *Associate Professor*

Feryal Yavas, *Lecturer and Director of the Linguistics Program*

Mehmet Yavas, *Professor*

The English Department offers three graduate degree programs: Creative Writing, Linguistics and Literature. The descriptions of the Creative Writing and the Linguistics programs can be found under their respective headings in this catalog.

Master of Arts in English

To be admitted into the Master's program in English, a student must meet the University's graduate admission requirements and have:

1. A bachelor's degree in English or a related field;
2. A minimum 3.0 undergraduate grade point average;
3. A combination of 1000 (verbal and quantitative) on the GRE;
4. International graduate student applicants whose native language is not English are required to submit a

score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

5. Two letters of recommendation from undergraduate or graduate professors;

6. A personal essay; and

7. Those who might be chosen for teaching assistantships will be interviewed by at least one member of the committee.

Degree Requirements

The Master's degree program consists of 30 semester hours of course work at graduate level (course numbers 5000 or above) and a thesis (6 credits). A maximum of six graduate semester hours may be transferred into the program subject to the approval of the graduate committee.

Required Courses

ENG 5048	Literary Theory	3
LIT 5405	Literature, Language and Society	3

Electives: A maximum of 24 semester hours (5000 or 6000) level may be taken at either campus.

Thesis: LIT 6970 Master's Thesis 6

The student must complete a research thesis. The topic must be approved by the faculty member who will supervise the research, and then approved by the Graduate Committee. The thesis will be accepted only after being read and approved by a Reading Committee. An oral defense is required before the Reading Committee.

Below is a list of graduate courses that are offered by the English Department in addition to those offered in the Creative Writing and Linguistics programs. Graduate standing is required for admission into all graduate courses.

Course Descriptions

Definition of Prefixes

AML - American Literature; CRW-Creative Writing; ENG-English-General; ENL-English Literature; LIN - Linguistics; LIT-Literature.

AML 5305 Major American Literary Figures (3). Each section will consider the lifework of several authors such as Hawthorne, Melville, Whitman, Twain, James, Faulkner, Mailer, Wright, Baldwin. May be repeated.

AML 5505 Periods in American Literature (3). The literature and criticism of one specified period of American literature, such as Colonial, Federal, Transcendental, Antebellum, and Twentieth Century. May be repeated with change of period.

CRW 6806 Teaching Creative Writing (3). The course will prepare graduate students (and teachers from secondary schools and community colleges) to teach introductory classes and workshops in Creative Writing. Students will observe and participate in the department's CRW 2001 courses. Prerequisites: CRW 3111, 3311, or graduate standing, or permission of instructor.

ENG 5009 Literary Criticism and Scholarship (3). Techniques and goals of humanistic research, bibliography, and critical commentary.

ENG 5018 Practical Criticism (3). Applies various critical theories - e.g. the formalistic, historical, structural, archetypal, sociological, etc. - to specific literary productions.

ENG 5026 Advanced Textual Reading (3). The study of selected texts for interpretation from different critical and theoretical perspectives. May be repeated. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

ENG 5048 Literary Theory (3). An introduction to issues in the nature of literature, the philosophy of criticism, and methods of interpretation. The theoretical foundations for literary study. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

ENG 5058 Form and Theory of Contemporary Literature (3). Various approaches and theories of practice in the major genres of imaginative writing, including development and articulation of the creative esthetic. May be repeated. Prerequisite: Permission of the instructor.

ENG 5907 Independent Study (VAR). Individual conferences, assigned readings, reports on independent investigations, with the consent of the chairperson.

ENG 5950 Special Project in English (1-3). Pursuit of projects involving relationship of profession to university and/or community and/or research issues in pedagogy, literature, or other areas. Prerequisites: Consent of Graduate Director or Department Chair. Corequisite: Consent of project supervisor.

ENG 5971 Thesis and Dissertation Workshop (3). A workshop providing practice in the type of writing, research, and analytical skills required for successful graduate study. Prerequisite: Graduate standing.

ENG 6909 Independent Study (VAR). Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson.

ENG 6935 Special Topics in College Pedagogy (3). The pedagogy of teaching a designated area of college and university English, such as Shakespeare, American literature, film studies, creative writing, or linguistics. Course content and organization to be determined by the individual professor. Course does not meet certification requirements.

ENG 6937 Teaching College Composition (3). A seminar-workshop introducing the pedagogy of academic and professional writing courses at the university and college level, to include traditional rhetoric, writing as process, the modes of discourse, and post-structuralist theory. Course does not meet certification requirements. Prerequisite: Graduate standing. Corequisite: College composition practicum.

ENG 6942 College Composition Practicum (1). Practical experience in the teaching of English at the university and college level through supervised activities to include tutorials, evaluating, and commenting on student essays, supervised classroom discussion and teaching. Course does not meet certification requirements.

ENL 5220 Major British Literary Figures (3). Each section will consider the lifework of an author such as

Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.

ENL 5505 Periods in English Literature (3). The literature and criticism regarding one specified period of English Literature, such as Medieval, Renaissance, Victorian, Twentieth Century, and Contemporary. May be repeated with change of period. Prerequisite: Permission of the instructor. Prerequisites: ENC 1101 and ENC 1102.

LIN 5019 Metaphor, Language, and Literature (3). Examines nature of metaphor as a cognitive phenomenon; how we use metaphor to conceptualize basic physical and cultural notions; role of cognitive metaphor in literature. Prerequisites: LIN 3013 or LIN 5018.

LIN 5211 Applied Phonetics (3). Study of sounds and suprasegmentals of English. Comparison of phonetic features of English with those of other languages. Universal constraints and markedness in learning second/foreign language pronunciation. Prerequisites: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIT 5358 Black Literature and Literary/Cultural Theory (3). Examines 20C. black literary critical thought. Students interrogate cultural theories and literary texts from African, Caribbean, African-American, Black British and Afro-Brazilian communities. Prerequisite: Graduate standing.

LIT 5359 African Diaspora Women Writers (3). Study of black women writers from throughout the Diaspora from the early 19th century to present. Prerequisite: Graduate standing.

LIT 5363 Literary Movements (3). Individual sections will study the authors, works, and audiences involved in such phenomena as Humanism, Mannerism, Romanticism, Symbolism, the Harlem Renaissance, and others. May be repeated.

LIT 5405 Literature, Society, and Language (3). This seminar explores language's relationship to social formation, specifically as it applies to the relationship between literature and social groups and institutions. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 5426 Authors in their Times (3). A focus on one or more designated authors and the biographical, political and historical context in which they wrote, using current critical and historical approaches. May be repeated. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 5486 Literature: Continuity and Change (3). Explores the development of a particular literary genre, ideological concept, or cultural tradition over a broad period of time. May be repeated. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 5487 Texts and Culture (3). The study of the relationship between specified texts and an historically, socially, or conceptually defined culture, such as Vietnam War Narratives, Jewish Literature, or Postmodernism. May be repeated. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 5934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 6934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 6935 Master's Colloquium (3). Individual sections study a specific literary topic, selected and presented jointly by several faculty members. May be repeated.
Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 6970 Master's Thesis (1-6). A thesis is required of all graduate students of English, to be written in the final semester done under the supervision of a faculty member.
Prerequisites: Admission to the graduate program in English and by permission of the supervising faculty.

Environmental Studies

Joel Heinen, *Professor and Chairperson*

Mahadev Bhat, *Associate Professor*

David Bray, *Professor*

Krishnaswamy Jayachandran, *Associate Professor*

Stephen P. Leatherman, *Professor (International Hurricane Research Center)*

Michael McClain, *Associate Professor*

Assefa Melesse, *Associate Professor*

Pallab Mozumder, *Assistant Professor*

Jeff Onsted, *Assistant Professor*

John Parker, *Emeritus Professor*

Gary Rand, *Professor*

Jim Riach, *Instructor*

Mike Ross, *Associate Professor*

Len Scinto, *Research Scientist (Southeast Environmental Research Center)*

Keqi Zhang, *Associate Professor*

Affiliated Faculty

Elizabeth Anderson Olivas, *GLOWS Project*

William Anderson, *Earth Sciences*

Maria Aysa, *Sociology/Anthropology*

Bradley Bennett, *Biological Sciences*

Jerry Brown, *Sociology/Anthropology*

Yong Cai, *Chemistry*

Daniel Childers, *Biological Sciences*

Shlomi Dinar, *International Relations*

Maureen Donnelly, *Biological Sciences*

Juliet Erazo, *Sociology/Anthropology*

Jim Fourqurean, *Biological Sciences*

Jennifer (Zhaohui) Fu, *GIS-RS Center*

Evelyn Gaiser, *Biological Sciences*

Piero R. Gardinali, *Chemistry*

Jennifer Gebelein, *International Relations*

Michael Heithaus, *Biological Sciences*

Gail Hollander, *International Relations*

James Huchingson, *Religious Studies*

Rudolf Jaffe, *Chemistry*

Jeff Joens, *Chemistry*

B.M. Golam Kibria, *Statistics*

Suzanne Koptur, *Biological Sciences*

David Lee, *Biological Sciences*

Rod Neumann, *International Relations*

Steve Oberbauer, *Biological Sciences*

George O'Brien, *Education*

Laura Ogden, *Sociology/Anthropology*

Kevin O'Shea, *Chemistry*

René Price, *Earth Sciences*

Stewart Reed, *US Department of Agriculture*

Laurie Richardson, *Biological Sciences*

Michael Sukop, *Earth Sciences*

Berrin Tansel, *Civil and Environmental Engineering*

Joel Trexler, *Biological Sciences*

Bill Vickers, *Sociology/Anthropology*

Carlton Waterhouse, *Law*

Kevin Whelan, *US Geological Survey*

Yan Yan Zhou, *Statistics*

Master of Science in Environmental Studies

The Environmental Studies Department offers the Master of Science (M.S.) in Environmental Studies degree to train students for work in the areas of environmental policy, natural resource science and management, and sustainable development, with particular focus on the South Florida region, the Caribbean Basin, Asia and Latin America. An emphasis of the program is the cultural and political milieu in which environmental issues of the region are embedded. The program is interdisciplinary in nature, and students will be encouraged to take advantage of University-wide resources, programs, and courses in environmental issues, such as those in Public Administration, International Relations, Biology, Chemistry, Earth Sciences, Political Science, Economics, and Sociology/Anthropology.

The M.S. degree program offers two options: thesis track and non-thesis track. The thesis track involves rigorous, solutions-oriented scientific research into the functioning of environmental systems. This track is highly recommended for students who are coming directly from undergraduate programs and who are interested in doctoral research in the future. The non-thesis track is primarily designed for employed professionals who may want to enhance their careers and skills through additional academic training beyond their bachelor's degree and practical training through internships with agencies, corporations, non-profit organizations or academic institutions. It is not recommended for students who do not have job experience.

Admission Requirements

To be admitted into the master's program in Environmental Studies, a student must meet the University's graduate admission requirements and:

1. Have a "B" average in upper level work, and a combined score of 1000 (quantitative and verbal) on the GRE, which every candidate must take. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
2. Have submitted three letters of recommendation, a one page statement of research interests, and a copy of all transcripts to the Graduate Program Director on or before March 1 for the Fall admissions and October 1 for the Spring admissions.
3. Have received approval of the departmental graduate program committee.

Degree Requirements

The Master of Science in Environmental Studies requires 36 credits, including the specific requirements (listed below) of either thesis track or non-thesis track option of the degree program. A maximum of six credits of post baccalaureate graduate course work may be transferred from other institutions, subject to approval of the graduate committee. Particular courses will be determined by the student in consultation with the thesis advisory committee, faculty advisor, or the Graduate Program Director.

Thesis Track: Course Requirements

EVR 5320	Environmental Resource Management	3
EVR 5355	Environmental Resource Policy	3
EVR 6950	Graduate Seminar	3
EVR 6971	Master's Thesis	6
Research Methods or Analysis Course		3
Electives		18
Total Credits		36

The research methods course and electives are selected in consultation with student's thesis advisor. Elective courses are chosen in one of the two graduate concentrations (see below) and fit the student's thesis research. Additional Master's Thesis, Thesis Research, or Graduate Independent Study up to a maximum total of 3 credits may also be applied as elective credit. A maximum of six credit hours may be taken at the 4000 level, and a minimum of six credit hours of electives must be taken in Environmental Studies. Students must demonstrate a competency in Statistics (equivalent to two courses of undergraduate statistics, taken prior to the admission into the program, with a "B" or better grade in both courses, or two courses of graduate statistics with a "C" or better grade in both courses). Additional course work may be recommended by the advisory committee.

Thesis Track: Graduation Requirements

A grade of 'B' or higher must be obtained in all core courses. A grade of 'C' or higher must be obtained in all courses, with a cumulative GPA of 3.0 or higher in the 36 credits. Students must pass a comprehensive oral and/or written qualifying examination. The format of the examination will be decided by the thesis advisor and the committee. A thesis must be completed and defended in consultation with the student's graduate thesis committee.

Non-Thesis Track: Course Requirements

EVR 5320	Environmental Resource Management	3
EVR 5355	Environmental Resource Policy	3
EVR 5907	Research and Independent Study	3
EVR 6950	Graduate Seminar	3
Quantitative Methods Course		3
Electives		21
Total Credits		36

The quantitative methods course and electives are selected in consultation with faculty advisor. Elective courses are chosen in one of the two graduate concentrations (see below), and to fit the student's particular professional interest and to ensure sufficient breadth and depth of environmental studies knowledge. Students carrying out research, internship or independent study for their non-thesis project should sign up for EVR 5907, but may not exceed six credits total. EVR 6970 and EVR 6971 will not count toward electives. A maximum of six credit hours may be taken at the 4000 level. A minimum of twelve elective credits must be taken in Environmental Studies. All courses except EVR 6950 must be taken for letter grades.

Non-Thesis Track: Graduation Requirements

A grade of "B" or higher must be obtained in all core courses. A grade of "C" or higher must be obtained in other courses, with a cumulative GPA of 3.0 or higher in the 36 credits. A project (EVR 5907) must be completed under faculty supervision, and the project report must be presented as a part of the Graduate Seminar class. This

work may be based on a specific field research, or internship of current occupation. A project is defined as a substantial analysis and proposal for change of real-world environmental problem.

Accelerated Master of Science in Environmental Studies

Admission Requirements

- Current enrollment in the Bachelor's Degree Program in EVR at FIU.
- Completed or enrolled in at least 90 undergraduate credit hours.
- Current GPA of 3.25 or higher.
- GRE combined score of 1000 (quantitative and verbal).

General Requirements

- Completed Bachelor's Degree in EVR at FIU.
- EVR 5320 Environmental Resource Management can substitute for EVR 4023 Biotic Resources for BS majors and be taken as an elective/area of concentration by BA majors.
- BA and BS majors can take EVR 5355 Environmental Resource Policy instead of EVR 4352 US Environmental Policy.
- Two-Three graduate electives (6-9 credits) can be counted towards areas of concentration for BA majors, or as electives or resource courses for BS majors.
- Take one section of EVR Graduate Seminar for EVR 4920 Undergraduate Senior Seminar.

Students are expected to have 12-18 graduate course credits by the time they receive the undergraduate degree.

Graduate Concentrations for the Master of Science in Environmental Science

The Department of Environmental Studies currently offers graduate-level concentrations in two different areas. 1) environmental policy and society, and 2) environmental sciences. A list of electives for each of these concentrations can be obtained from the Department's Office.

Juris Doctor/Master of Science in Environmental Studies Joint Degree Program

The faculties of the College of Law and the College of Arts and Sciences at Florida International University offer a joint degree program culminating in both a Juris Doctor (J.D.) degree, awarded by the College of Law, and a Master of Science in Environmental Studies (MS-ES) degree, awarded by the College of Arts and Sciences. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

1. Candidates for the program must meet the entrance requirements for and be accepted by both Colleges. Both Colleges must be informed by the student at the time of application to the second program that the student intends to pursue the joint degree.
2. The joint degree program is not open to students who have already earned one degree.
3. For law students, enrollment in the MS-ES program is required no later than the completion of 63 credit hours

- in the J.D. program. For MS-ES students, enrollment in the J.D. program is required no later than the completion of 24 credit hours in MS-ES program.
4. A student must satisfy the curriculum requirements for each degree before either degree is awarded. For the MS-ES degree, students must meet the requirement of the non-thesis track option. The College of Arts and Sciences will allow 6 credit hours of foundation law courses and up to 9 credit hours of upper level environmental law courses to be credited toward both the MS-ES and J.D. degrees. These law classes will count toward the non-EVR Environmental Studies elective credits allowed under the MS-ES non-thesis track program. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the J.D. degree for courses taken in the MS-ES curriculum upon completion of the MS-ES degree curriculum with a grade point average of 3.0 or higher.
 5. The College of Arts and Sciences will recognize any significant, environment-related law review or research project completed with a letter grade of 'B' or better for the J.D. program toward the 3 credit hour course, EVR 5907 Research and Independent Study and the attendant 'Project' required for the MS-ES non-thesis track program. For the purpose of this program, a Project is defined as a substantial analysis and proposal for change of a real-world environmental problem, and requires preparation of a report and presentation as part of the required Environmental Studies Graduate Seminar class.
 6. A student enrolled in the joint degree program may begin the student's studies in either College, but full time law students must take the first two semesters of law study consecutively and part-time law students must take the first three semesters of law study consecutively. Students admitted to one College but electing to begin study in the other College under the joint degree program may enter the second College thereafter without once again qualifying for admission so long as they have notified the second College before the end of the first week of the first semester in the second College and are in good academic standing when studies commence in the second College.
 7. A student enrolled in the joint degree program will not receive either degree until the student has satisfied all of the requirements for both degrees, or until the student has satisfied the requirements of one of the degrees as if the student had not been a joint degree candidate.
 8. As non-thesis track MS-ES students, students in the joint degree program will not normally be eligible for the graduate teaching assistantships in the Environmental Studies Department.

Course Descriptions

Definition of Prefixes

EVR-Environmental Studies.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

EVR 5005 Environmental Science and Sustainability

(3). Introductory environmental science course for graduate students in environmental studies and other disciplines. Emphasizes physical sciences and applications to environmental issues.

EVR 5044 Advanced GIS and Environmental Data Analysis (3). Explores project planning, geospatial database design and implementation of analytical and display methods in GIS for organizing, querying, analyzing and presenting spatial data. Prerequisites: One of the following: EVR 5050, CGN 4321, CGN 5320, INR 4931, URS 6930.

EVR 5061 South Florida Ecology: Field Studies (3). Introduction to ecology of South Florida. Series of field trips to unique ecosystems (Everglades, hardwood hammocks, coastal regions). No science background required. Intended for teachers. Not intended for Environmental Studies graduate students.

EVR 5065 Ecology of Costa Rican Rainforest (3). Intensive study of Central American tropical forest ecosystems conducted for two weeks in Costa Rica in sites ranging from lowland to high mountains. Primarily for teachers. Prerequisites: Graduate standing or permission of the instructor. (SS)

EVR 5066 Ecology of the Amazon Flooded Forest (3). Study of the ecology of the flooded forest with emphasis on the relationships between plants and animals and the annual flooding cycle. The course includes a two-week field study at river camp in Peru. Prerequisites: Graduate standing or permission of the instructor. (SS)

EVR 5215 Water Resources Assessment (3). Elements of hydrological cycle, hydrological processes and water resources assessment with emphasis on surface and groundwater water quantity and quality evaluation is central to the course.

EVR 5236 Air Pollution Dynamics (3). A course designed to give an understanding of the fates of atmospheric pollutants. Scavenging processes in the atmosphere; radiation, residence times, chemical reactions, global transport process, point source dispersion and modeling calculations. Prerequisites: EVS 3360 or EVR 4231.

EVR 5313 Renewable Energy Sources (3). An analysis of renewable energy sources and energy efficiency including wind, biomass, geothermal, hydroelectric, solid waste, solar heating, solar cooling, and solar electricity. Prerequisite: Permission of the instructor.

EVR 5315 Energy Resources and Systems Analysis (3). Detailed analysis of energy flows in natural and manmade systems. Energy systems analysis. Energy use patterns. Conventional and alternate sources of energy.

EVR 5320 Environmental Resource Management (3). The scientific and philosophical basis for the management of renewable and non-renewable energy, mineral, air, water, and biotic resources. Prerequisites: Graduate standing or permission of the instructor. (F)

EVR 5332 Integrated Solutions for Water in Environment and Development (3). Examines the theory and practice of integrated water resources management, focusing on science, policy, and socioeconomic themes evaluated through case studies from different regions of the world. Emphasis given to environmental elements.

EVR 5350 International Organizations & Environmental Politics (3). The role of international organizations in environmental politics and the process of their formation

and change in response to environmental problems. Prerequisites: Graduate standing or permission of the instructor.

EVR 5353 International Energy Policy (3). Focuses on the distribution of global energy resources and related issues. A comparison of the energy policies of various countries serves as the basis for exploring alternative energy policy approaches. Prerequisites: EVR 5355 or permission of the instructor.

EVR 5355 Environmental Resource Policy (3). A survey of international and national environmental policy and the legal, economic, and administrative dimensions of international accords and selected U.S. law. Prerequisites: EVR 5320 or permission of the instructor. (S)

EVR 5410 The Human Population and Earth's Ecosystems (3). Explores the impact of the human population of Earth's ecosystems. Reviews current population data at global, regional, and local scales. Includes study of specific South Florida carrying capacity issues.

EVR 5907 Research and Independent Study (VAR). The student works with a professor on a research project. Variable credit.

EVR 5935 Special Topics (VAR). A graduate-level course dealing with selected environmental topics. The content will not necessarily be the same each time the course is offered.

EVR 5936 Topics in Environmental Studies (3). An analysis of several current environmental topics. Recommended for primary and secondary school teachers.

EVR 6067 Tropical Forest Conservation and Utilization (3). Distribution and classification of tropical forest ecosystems, their description and the ecological principles governing their function. Factors influencing tropical forest utilization and destruction, and strategies for sustainable use and conservation. Prerequisites: EVR 5355 or permission of the instructor.

EVR 6300 Topics in Urban Ecology (3). Topics include urban and suburban ecosystems emphasizing energy relations, ecological functions of urban landscapes, urban wildlife, urban forestry and ecological issues relevant to human health and well-being. Prerequisites: PCB 3043 or permission of the instructor.

EVR 6330 Tropical Ecosystems Management (3). Analyzes the dimensions of tropical ecosystems management. Organizational and institutional dynamics of the management of tropical forests, agriecosystems, and coastal areas are covered. Prerequisite: Permission of the instructor.

EVR 6360 Protected Area Management (3). Interdisciplinary examination of ecological, administrative, and socio-economic aspects of managing protected natural areas. Case studies from developed and developing nations.

EVR 6405 International Biological Conservation Accords (3). Survey of international biological conservation agreements. Topics include bilateral migratory wildlife agreements, the Berne Convention on

Migratory Wildlife, CITES, Ramsar, the UNCED Biodiversity Treaty and the Statement of Principles on Forests. Prerequisites: EVR 5355 or permission of the instructor.

EVR 6406 U.S. Endangered Species Management (3). History and implementation of the U.S. Endangered Species Act. Topics include legal and administrative aspects, reauthorization, procedures for recovery planning and conflict resolution, and biological measures of success. Prerequisites: EVR 5355 or permission of the instructor.

EVR 6950 Graduate Seminar (1). A weekly seminar that features guest speakers, student presentations, and discussions among graduate students and faculty. Environmental Studies graduate students are required to register during three semesters of their program. Prerequisite: Permission of the instructor.

EVR 6970 Supervised Research (1-12). Supervised research toward completion of the student's program of study. Repeatable. Prerequisite: Permission of Major Professor.

EVR 6971 Master's Thesis (1-12). Completion of Master's Thesis. Repeatable. Prerequisite: Permission of Major Professor.

EVR 7056 GIS in Water Resources (3). Spatial analysis of watersheds and modeling of hydrological processes with emphasis on surface runoff, evapotranspiration and sub surface flow. Prerequisite: GIS 5050 or equivalent or permission of the instructor.

EVR 7084 Interdisciplinary Environmental Studies (3). Explores theoretical and practical approaches to interdisciplinary analysis of environmental issues, including sustainability science, ecological economics, and human-nature interactions. Prerequisites: EVR 5320 and EVR 5355 or equivalent or permission of the instructor.

EVR 7322 Methods of Sustainable Resource Management (3). A study of methods and policies for achieving a sustainable environment. Covers project appraisal, resource modeling and national accounts in the context of resource sustainability. Prerequisites: Graduate standing or permission of the instructor.

EVR 7329 Watershed Analysis and Management (3). An examination of the watershed approach to managing water and land resources. Integrating fundamental physical, chemical, and biological processes with human systems at the landscape scale using GIS.

EVR 7445 Public Land Management (3). Examines the historical, administrative, and legal settings that have predisposed various resource management agencies to succeed or fail in protecting public lands. Explores new and integrated approaches to building consensus on public land management issues. Prerequisites: EVR 5320, EVR 5355, equivalent or permission of the instructor.

EVR 7980 Ph.D. Dissertation (3). Research directed towards completion of the doctoral dissertation. To be taken every semester by the candidates if the Ph.D. Prerequisite: Permission of the major professor.

EVS 6145 Ecotoxicology (3). Fate of chemicals and their acute and chronic toxicological effects on aquatic and wildlife systems. Dose-response relationships,

bioavailability, bioconcentration, microbial degradation, and biomonitoring. Prerequisites: One year of biology and one year of chemistry and CHM 2200 and lab or permission of the instructor.

EVS 6194 Applied Soil Biology (3). Examines biology of soil organisms and biologically-mediated chemical transformations occurring in soil ecosystems. Prerequisite: BSC 1011.

EVS 6637 Ecological Risk Assessment (3). Evaluation of risks of foreign chemicals to aquatic and terrestrial systems. Concepts and methodology used in the hazard and risk assessment of toxic effluents, chemical/oil spills, and contaminated sediments. Prerequisites: One year of biology and one year of chemistry and CHM 2200 and lab or permission of the instructor.

GIS 5050 Environmental GIS (3). Concepts of GIS, database design and management, advanced spatial analysis and modeling, uncertainty, error, and sensitivity in GIS. Focus on GIS project design, execution and presentation using AroGIS. Prerequisite: Permission of the instructor.

Forensic Science

Bruce McCord, Associate Professor and Graduate Program Director

Kenneth Furton, Professor and Co-Director, IFRI

Jose R. Almirall, Associate Professor and Co-Director, IFRI

Albert Sabucedo, Lecturer

Administered by the International Forensic Research Institute (IFRI), the Master of Science in Forensic Science is an interdisciplinary program designed to prepare students for careers in local, state and national forensic science laboratories. The program may also be suitable preparation for doctoral instruction in several disciplines.

Admission Requirements

To be admitted into the Master's degree program in Forensic Science, a student must:

1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university.*
2. Have a 3.0 GPA in upper-level course work and a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Exam.
3. Two letters of recommendation of the student's academic potential.
4. Be accepted by a faculty sponsor.
5. Receive approval from the Graduate Committee.
6. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

*Minimum requirement is the equivalent of a bachelor's degree in biology, chemistry or related science approved by the graduate committee. It is recommended that students have the equivalent of a minor in chemistry before taking the required courses.

Degree Requirements

The Master of Science in Forensic Science consists of a minimum of 32 credits, including a thesis based upon the student's original research or completion of an independent study report option.**

A maximum of six credits of post-baccalaureate coursework may be transferred from other institutions, subject to the approval of the Graduate Committee. The graduate committee will consist of the Graduate Program Director and a member from each of the following departments: Chemistry, Biology, Criminal Justice and Psychology. The thesis committee shall consist of the research advisor (normally the faculty sponsor), and at least two additional committee members who have some expertise in the graduate student's research area. All members must hold graduate faculty status.

Required Courses:

BSC 5406	Forensic Biology	3
CHS 5542	Forensic Chemistry	3
CHS 5531	Forensic Analysis	3

BSC 5931	Thesis Proposal	1
CHM 6935	Thesis Proposal	1
	or	
	approved cognate ¹	

BSC 5975	Thesis Defense Seminar	1
CHM 6971	Thesis Defense Seminar	1
	or	
	approved cognate ¹	

BSC 6971	Thesis	6
CHM 6970	Thesis	6
	or	
	approved cognate ¹	

Electives²

15

¹Equivalent courses in the student's area(s) of thesis concentration may be substituted upon approval by the thesis committee in consultation with the Graduate Program Director (i.e., CCJ, GLY, PHY, PSY). ²At least fifteen credits of additional graduate-level courses, workshops and laboratories (excluding research and seminar) from participating departments approved by the thesis committee in consultation with the Graduate Program Director. [Consult the Director for a selected list of Chemistry, Biology, Earth Sciences, Criminal Justice, and Legal Psychology courses].

**A report option is available for students with at least one year of forensic science lab work experience. Students approved for this option can replace "Thesis" with "Independent Study in Forensic Science (CHS 6905)" and the two additional required courses "Analytical Toxicology (CHS 5539)" and "Advanced Quality Control (STA 5664)".

Graduation Requirements

A grade of "C" or higher must be obtained in all courses with a cumulative average of 3.0/4.0 or higher, and presentation and submission of a satisfactory research thesis to the Thesis Committee.

History

Mark D. Szuchman, *Professor and Chairperson*

Noble David Cook, *Professor*

Elizabeth Cooper, *Assistant Professor*

Alexandra Cornelius-Diallo, *Assistant Professor*

Gwyn Davies, *Assistant Professor*

Rebecca Friedman, *Associate Professor*

Veronique Helenon, *Assistant Professor*

Sherry Johnson, *Associate Professor and Director of Graduate Studies*

Howard Kaminsky, *Professor Emeritus*

Lara Kriegel, *Associate Professor*

Alex Lichtenstein, *Associate Professor*

Felice Lifshitz, *Professor*

Kenneth Lipartito, *Professor*

Aurora Morcillo, *Associate Professor*

Laura Nenzi, *Assistant Professor*

Akin Ogundiran, *Associate Professor*

Joseph F. Patrouch, *Associate Professor*

Brian Peterson, *Associate Professor*

Joyce S. Peterson, *Associate Professor and Associate Dean*

Bianca Premo, *Associate Professor*

Darden Asbury Pyron, *Professor*

Howard B. Rock, *Professor*

Victor M. Uribe, *Associate Professor*

Chantalle Verna, *Assistant Professor*

Kirsten Wood, *Associate Professor*

Master of Arts in History

The Department of History offers the M.A. degree, with concentration in one of four culture areas: United States, Africa, Europe, and Latin America. Students will choose a Thesis, Report, or Internship in Public History option, in consultation with the Department's Graduate Program Director. The degree requirements for the M.A. vary according to the option taken.

Entrance Requirements

Requirements for admission into the M.A. degree program in History are the same regardless of the option selected. Applicants must also satisfy any additional requirements the University sets for admission to graduate work. Applications should include transcripts from any postsecondary institutions attended, and two (2) letters of recommendation.

Applicants seeking entrance for the Fall Term should prepare all application materials in time for the Department of History to receive them no later than February 15. Completed applications generally receive notification of admission by March 15.

Application materials from individuals seeking entrance for the Spring Term must be received by the Department of History no later than October 15. Completed applications generally receive notification of admission by December 1.

1. Applicants must hold a bachelor's degree from an accredited institution and have a 3.0 GPA in upper-level work. An applicant who feels she/he will strengthen his/her application may also submit scores on the Graduate Record Examination. The GRE is not, however, required.

2. Two letters of recommendation. Applicants should ensure that each letter on their behalf is signed by the

author along the sealed flap of the envelope. Letters should be mailed directly to the Graduate Program Director, together with the waiver form available from the Department of History website.

3. Applicants must have completed 12 semester-hours of credit (on the basis of 3-hour courses) in upper division undergraduate courses in History, or equivalent, as approved by the Graduate Program Director.

Any applicant with fewer than twelve (12) semester-hours of undergraduate courses in History should consult the Graduate Program Director about taking at least six (6) semester-hour graduate credits as a Special Student (consult the University Catalog and the Office of Graduate Admissions). After completing this work with an average grade of "B+" (3.3), the student may apply for regular admission. Other methods may be pursued with the permission of the Graduate Program Director.

The above admissions criteria are only minimum requirements. All applications are reviewed by the Graduate Committee which makes the final admissions recommendation to the University Graduate School.

Degree Requirements

Thesis Option

1. A minimum of 30 semester-hours for the degree, including the maximum of six semester-hours of Thesis Research. All course work must be taken at FIU.

2. A minimum of 24 semester-hours of course work, including one two-semester Research Seminar.

3. Reading competence in a foreign language, demonstrated by achieving a Pass or High Pass on the departmental examination. Courses taken to attain language competency do not count towards the degree. The Latin American concentration requires proficiency in Spanish, Portuguese, or another language appropriate to the student's field; the modern European concentration requires proficiency in an appropriate European language; the United States concentration requires proficiency in any of the above, or competency in social science quantitative skills, demonstrated by receiving a grade of "B" or higher in an appropriate course approved for this purpose by the Graduate Program Director; the medieval or ancient concentration in two languages; one of Hebrew, Latin, Greek or another ancient language as deemed appropriate by the student's advisor, and one modern European language.

4. The following limits are placed in accumulating credits toward the M.A. degree:

a. No more than six semester-hours of HIS 5908 (Independent Study) are permitted.

b. Students must receive the grade of "B" (3.0) or better in order for any course to count toward the degree.

c. Students are prohibited from taking graduate-level cross-listed courses that they have already taken at the undergraduate level.

5. All students are required to take HIS 6059 (Historical Methods)

6. Core Area. Students will select one core area for concentration in United States History, European History, African History or Latin American and Caribbean History, in consultation with the Graduate Advisor. Twelve semester-hours of course work will be taken within the core area.

7. Breadth Areas. Students will take six semester-hours in breadth areas. These may be courses taken within the

Department of History that are outside the culture area of concentration, or in associated disciplines outside of the Department (with the approval of the Graduate Advisor), or a combination of the two.

8. Students will take one elective course for 3 semester-hours.

9. Students will register for up to six semester-hours of HIS 6970 (Thesis Research).

10. At least one course must be comparative. Comparative courses must have HIS or WOH prefixes, or else be Independent Study approved for this purpose by the Graduate Program Director.

11. The thesis must be successfully defended and formally approved by a Thesis Committee composed of three members, two of whom must be graduate faculty members of the Department of History. The Thesis Committee is convened and headed by the thesis supervisor.

12. The degree candidate will prepare the thesis in accordance with the regulations stipulated in the University's Graduate Policies Manual. The degree will be conferred after the approval of the final version of the thesis by the Offices of the Dean of the College of Arts and Sciences and the University Graduate School.

Report Option

1. A minimum of 30 semester-hours of course work are needed for the M.A. degree. The report option does not set requirements for Core/Breadth area distribution. Students will design their course work in consultation with the Graduate Program Director and the relevant faculty. All courses must be taken in the Department of History at FIU.

2. Students must complete one two-semester research seminar. With the consent of the professor for whom it was written, students will revise the report and submit it to the Graduate Committee for final approval.

3. HIS 6059 (Historical Methods) is required of all students.

4. 6 semester-hours, not including Historical Methods, must be comparative. Comparative courses must have HIS or WOH prefixes, or else be Independent Study approved for this purpose by the Director of Graduate Studies.

5. The following limits are placed on accumulating credits towards the Master's degree:

a. Students must receive the grade of "B" (3.0) or better for the course to count toward the degree.

b. HIS 5908 (Independent Study) is limited to six semester-hours.

Internship in Public History Option

1. A minimum of 30 semester hours for the degree, including 6 semester hours of Independent Study tied to an internship in the fields of Museum Studies or Public History. The internship requires a minimum of 300 hours of work that is to be documented by the project supervisor or museum director. The internship must be approved by the Graduate Program Director and supervised by a regular member of the department's faculty. Students must submit a written report following departmental regulations of their internship activities to the Graduate Committee before the degree can be awarded.

2. A minimum of 24 semester hours of course work, of which 6 credit hours must be taken from the following

list of courses: HIS 5067 (Public History), HIS 5084 (Museum History), ARH 5850 (Introduction to Museum Studies), ARH 5851 (Museum Ethics). Other appropriate courses may be substituted with permission of the Graduate Program Director.

3. Students must complete one two-semester research seminar.

4. HIS 6059: Historical Methods.

History M.A. Option

Only students who have been admitted to the Ph.D. program without previously receiving an M.A. in History are eligible to pursue this track.

1. Completion of 39 hours of course work for graduate history credit. All course work must be taken at FIU, and receive a grade of "B" (3.0) or better.

2. Completion of one two-semester Research Seminars.

3. Completion of Historical Methods.

4. Reading competency in a language other than English.

5. Approval of this option by the Graduate Program Director, who will determine if the student is making satisfactory progress towards the Ph.D.

Combined Bachelor of Arts/Master of Arts in History

This combined BA/MA degree program allows our highly qualified undergraduate students the opportunity to pursue a Masters degree in History while they are completing their undergraduate studies. Students who pursue this track must complete all requirements for the undergraduate history major, including the prerequisites and the senior seminar, our capstone course. As part of their joint degree, students will enroll three cross-listed courses at the 5000 level (9 credits). After completing all undergraduate credits, including the double counted courses, students will receive the B.A. In the summer following receipt of the B.A., they will take a minimum of three credit hours at the graduate level. In their final year, they will take 18 credit hours at the graduate level, including a two-semester Research Seminar (6 hours), Historical Methods (3 hours), and graduate seminars (9 hours). Students must complete all credits within a year of receiving the History B.A.

Entrance Requirements

1. Formal applicants must be in the first semester of their senior year, having 90 credits toward graduation. Please note that junior majors who are interested in pursuing this program should make their intentions known to the undergraduate and graduate advisors.

2. Applicants must have a 3.25 GPA overall and a 3.4 GPA in history courses taken at FIU.

3. Applicants must provide two letters of recommendation from tenured or tenure-earning FIU History Professors.

4. The History Department's Graduate Committee will make the final decision regarding admission to the program.

Credit/Course Requirements

Senior Year

- In their senior year, students will complete three cross-listed History courses at the 5000 level (9 credits).
- In their fourth year, students will also complete the exit requirement for the undergraduate History major, the Senior Seminar, HIS 4935 (3 credits).

- Students must apply for graduation so that they will receive the B.A. at the end of their senior year.

Fifth Year

- In the summer after the senior year (between years 4 and 5), students will take at least three graduate credits. These can be taken in the form of a graduate independent study (HIS 5908), a public history internship (HIS 6942), or a dedicated graduate course.
- Those students who graduate in the fall semester will take a full load in the spring and then complete these credits the following summer. (3 credits)

During the fifth year, students will complete 18 hours of graduate level work, including the following:

One two-semester (6 credit hours) History Graduate Research Seminar 6
 Graduate Methods Course, HIS 6059 3
 Three Courses at the 5000 or 6000 level. 5000-level courses taken in the fifth year may not be cross-listed with 4000-level courses 9

All students MUST complete the M.A. credits within a year of receiving the B.A. in History at FIU.

Doctor of Philosophy in History

The doctoral program in History offers students opportunities to concentrate on the areas of Latin America, Africa, the United States, or Europe. The program contains an underlying comparative framework based on the civilizations of the Atlantic, which allows students to explore the many dimensions of cross cultural exchanges. The curriculum thus emphasizes the comparative framework around the Atlantic experience, and reflects the vitality of a cross-disciplinary approach.

Admission to the Program

Every applicant must complete an application form, and submit college transcripts, GRE scores and the application fee to the Office of Graduate Admissions. A curriculum vitae, writing sample, statement of research interests, and at least two letters of recommendation together with the waiver form available from the Department of History should be submitted to the Graduate Program Director. For those transferring into the program who already hold the M.A., the thesis, when available, should be submitted as the sample. Admission requires a GRE score meeting University standards and a minimum undergraduate GPA of 3.0 in the upper level work. Applicants with M.A. degree are required to have a graduate GPA of at least 3.25. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 90 on the iBT TOEFL (equivalent to 575 on the paper-based version, or 232 on the computer-based version of the Test of English as a Foreign Language) is required.

Applicants seeking entrance for the Fall Term should prepare all application materials in time for the Department of History to receive them no later than January 15. Applicants will be notified of the Department's recommendation regarding their application no later than March 15.

Application materials from individuals seeking entrance for the Spring Term must be received no later than

October 15. Applicants will be notified of the Department's recommendation no later than December 1.

Degree Requirements

Number of Credits Required

A minimum of 75 credits are required for students entering the Ph.D. program without a M.A. in History, or 45 for those entering with a History M.A. from an accredited institution.

Language Requirements

All students must acquire reading competence in two languages other than English. The language requirement may be fulfilled in one of two ways: 1) achieving a High Pass on the department examination in one language, and at least a Pass on the second; or 2) achieving a Pass or High Pass in departmental examination in one language, and competency in social science quantitative skills, demonstrated by receiving a grade of "B" or "B+", for Pass, and "A" or "A-", for High pass, in an appropriate course approved for this purpose by the Director of Graduate Studies. At least one High Pass must be received. Language requirements vary, according to the concentration fields. In cases where the dissertation will be in the history of US or English-speaking countries, one language plus the quantitative skill is sufficient. In Latin American history, either Spanish or Portuguese, and a second language appropriate to the student's field are required. Language exams will be graded on a High Pass, Pass, and Fail basis; a High pass is required in the student's primary language. Students should check with the Department's Director of Graduate Studies to determine which languages are appropriate for their program of studies.

Composition of Course Work

Course requirements for students entering the Ph.D. program without an M.A. are as follows:

1. HIS 6059 (Historical Methods), 3 credits.
2. Readings and Research in Atlantic Civilization (HIS 6906 and HIS 6918), 6 credits.
3. 24 credits are required in the student's core culture area to be chosen from the United States, Latin America and the Caribbean, Africa, or Europe, including at least 6 credits in a research seminar.
4. 15 credits are required in geographical/topical areas outside the culture area of concentration, 3 of which must be in comparative course (WOH or HIS, not including Historical Methods or Atlantic Civilization).
5. 15 elective credits, 9 of which may be taken outside the department with the permission of the Director of Graduate Studies.
6. 15 credits of dissertation research.

Course requirements for students entering the Ph.D. program with an M.A. in History are as follows:

1. HIS 6059 (Historical Methods), if not previously taken, 3 credits.
2. Readings and Research in Atlantic Civilization (HIS 6906 and HIS 6918), 6 credits.
3. 18 credits are required in the student's core culture area to be chosen from the United States, Latin America and Caribbean, Africa, or Europe, including at least 6 credits in a research seminar. If, however, students did not have at least 12 credits in their area of concentration in their MA, they must take an

additional 3-6 credits in their area of concentration in lieu of the elective and comparative history requirements specified below.

4. 3 credits in comparative history (WOH or HIS), not including Methods or Atlantic Civilization.
5. 9 credits of outside culture area.
6. A minimum of 15 credits of dissertation research.

Comprehensive Examinations and the Dissertation

Following completion of all course work, satisfaction of language requirements, and the constitution of a dissertation committee, students will be required to pass a written and an oral comprehensive examination. After the completion of their comprehensive examinations and the approval of a dissertation proposal by their dissertation committee, students will write a doctoral dissertation. The time needed for the research and writing of dissertations in History is variable, although doctoral candidates normally spend one year engaged in continuous field research and a second year in full-time writing.

Restrictions

1. The grade of "B" or better is required for graduate credit.
2. At the end of the second semester of residence, or upon completion of the first 18 credit-hours of work, the Graduate Committee will examine and evaluate the student's progress and prospects. Professors will provide detailed written evaluations of the work of all first-year Ph.D. students they have taught. Students whose progress is deemed insufficient will be advised to withdraw from the program.
3. No more than 6 semester-hours of Topics (5935) courses toward meeting the degree requirements, without permission of the Director of Graduate Studies.
4. No more than 6 semester-hours of HIS 5908 (Independent Study) toward meeting the degree requirements, without permission of the Director of Graduate Studies.

Course Descriptions

Definition of Prefixes

AFH-African History; AMH-American History; EUH-European History; HIS-General; LAH-Latin American History; WOH-World History.

AFH 5905 Readings in African History (3). An examination of historiographical traditions within African history. Topics will vary; with a change in theme, the course may be repeated. Prerequisite: Graduate standing.

AFH 5935 Topics in African History (3). An examination of specific themes in African history. Topics will vary. With a change in theme, the course may be repeated. Prerequisite: Graduate standing.

AFH 6915 Research in African History (3). Research in primary and secondary sources on African History. Subjects may vary. May be repeated with departmental approval. Prerequisite: Graduate standing.

AFH 6932 Research Seminar in African History I (3). Semester one of a two-semester research seminar investigating topics in African history. Topics may vary.

AFH 6933 Research Seminar in African History II (3). Semester two of a two-semester research seminar

investigating topics in African history. Prerequisite: AFH 6932.

AMH 5905 Readings in American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in American history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

AMH 5935 Topics in American History (3). An examination of specific themes or topics in American history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate standing.

AMH 6906 Advanced Readings in American History (3). Detailed analysis of a selected topic in American History. May be repeated as topics vary. Prerequisite: Graduate standing.

AMH 6915 Research in American History (3). Students conduct research in primary and secondary sources on aspects of important subjects in American History. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

AMH 6932 Research Seminar in American History I (3). Semester one of a two-semester research seminar investigating topics in American history. Topics may vary.

AMH 6933 Research Seminar in American History II (3). Semester two of a two-semester research seminar investigating topics in American history. Topics may vary. Prerequisite: AMH 6932.

ASH 5446 Pre-Modern Japan (3). Survey of key historiographical interpretations on the history of early modern Japan (1600-1868), including 'classics' and recent works that introduce new avenues of research.

ASH 5905 Readings in Asian History (3). Graduate reading seminar dedicated to issues of gender, identity, and authority in China, Japan, and other regions of Asia.

ASH 5930 Topics in Asian History (3). An examination of topics in Asian history such as gender, modernization, transnational encounters, or the intersection of culture and politics. Comparative approach emphasized.

EUH 5905 Readings in European History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in European history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

EUH 5935 Topics in European History (3). An examination of specific themes or topics in European history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate standing.

EUH 6906 Advanced Readings in European History (3). Detailed analysis of a selected topic in European history. May be repeated as topics vary. Prerequisite: Graduate standing.

EUH 6915 Research in European History (3). Students conduct research in primary and secondary sources on aspects of important subjects in European History. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

EUH 6932 Research Seminar in European History I (3). Semester one of a two-semester research seminar investigating topics in history. Topics may vary.

EUH 6933 Research Seminar in European History II (3). Semester two of a two-semester research seminar investigating topics in European History. Topics may vary. Prerequisite: EUH 6932.

HIS 5067 Public History (3). The theory, methods and practice of history in non-academic settings, including museums, national parks, governmental agencies, corporations, and community organizations. Prerequisite: Graduate Standing.

HIS 5084 Museum History (3). Examines key texts in the history of museums in modern Europe and the United States. Among issues it addresses are nationalism, imperialism, memory, and identity politics. Prerequisite: Graduate Standing.

HIS 5289 Comparative History (3). A study of specific topics in history that cut across regional, national, and chronological lines. The topics will change from semester to semester, and with a change in content, the course may be repeated. (The topic of the course will be announced in the yearly schedule). Prerequisite: Graduate standing.

HIS 5347 History of Social Thought (3). Examines the evolution of major currents in Western social thought from the nineteenth century to the present, emphasizing how these ideas have influenced historians' work.

HIS 5908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor. Prerequisite: Graduate standing.

HIS 5910 Advanced Research Seminar (3). Small group sessions will analyze particular subject areas in history, with the consent of the instructor. Prerequisite: Graduate standing.

HIS 5930 Special Topics (3). An examination of specific themes or topics in history. The theme will vary from semester to semester, and with a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate standing.

HIS 5940 Supervised Teaching (1-3). The students will work under the close supervision of a regular member of the faculty in a mentorship fashion. The supervision will cover various aspects of course design and delivery in history. Prerequisite: Graduate standing.

HIS 6059 Historical Methods (3). A seminar designed to introduce the beginning graduate student to the technical aspects of the study of history. Prerequisite: Graduate standing.

HIS 6159 Historiography (3). An introduction to the discipline of history, with primary and secondary readings allowing exploration of the evolution of historical schools of

thought over several generations. Prerequisite: Graduate standing.

HIS 6906 Advanced Readings in Atlantic Civilization (3). A team-taught, comparative course dealing with the interactions between at least two of the geographical fields of concentration. May focus on one or more topics. Required of all Ph.D. students during their first term of study in the program. Prerequisite: Graduate standing.

HIS 6918 Research in Atlantic Civilization (3). A research seminar on cross-cultural topics, involving the comparative method. Required of all Ph.D. students in the program, during second term of residence. Topics will vary. Prerequisite: Graduate standing.

HIS 6942 Internship in Public History (3-6). Offers hands-on experience in public history and museum studies to students in public history option. Prerequisites: Enrollment in History MA Option in Public History; permission of the instructor.

HIS 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. May be repeated. Prerequisite: Permission of Department.

HIS 7980 Ph.D. Dissertation (1-12). Completion of Doctoral Dissertation. Prerequisite: Permission of Major Professor and Doctoral Candidacy.

LAH 5905 Readings in Latin American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in Latin American history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

LAH 5935 Topics in Latin American History (3). An examination of specific themes or topics in Latin American history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate standing.

LAH 6906 Advanced Readings in Latin American History (3). Detailed analysis of a selected topic in Latin American history. May be repeated as topics vary. Prerequisite: Graduate standing.

LAH 6915 Research in Latin American History (3). Students conduct research in primary and secondary sources on aspects of important subjects in Latin American history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

LAH 6932 Research Seminar in Latin American History I (3). Semester one of a two-semester research seminar investigating topics in Latin American History. Topics may vary.

LAH 6933 Research Seminar in Latin American History II (3). Semester two of a two-semester research seminar investigating topics in Latin American history. Topics may vary. Prerequisite: LAH 6932.

WOH 5236 The Transatlantic Slave Trade and the Making of African Diaspora, 1441-1807 (3). Topics include slavery and economy in Africa and the Diaspora, as well as Diasporic religion, kinship, gender, sexuality, language, oral tradition, resistance, and creolization.

WOH 5237 The African Diaspora Since the End of the Slave Trade (3). Primary emphasis on history of social and intellectual movements. Topics include slave resistance, black nationalism, socialism, anticolonialism, gender, art and literature, and afrocentrism.

WOH 5935 Topics in World History (3). An examination of specific themes in World History. Topics will vary with a change in theme, the course may be repeated. Prerequisites: Permission of the instructor or graduate standing.

WOH 6227 Global Economic History (3). Global economy 1500-present. Industrialization, trade, finance, and labor in Europe, US, Asia, Latin America. Comparative economic systems. Prerequisite: Graduate standing.

WOH 6932 Research Seminar in World History I (3). Semester one of a two-semester research seminar investigating topics in World history. Topics may vary.

WOH 6933 Research Seminar in World History II (3). Semester two of a two-semester research seminar investigating topics in World history. Topics may vary. Prerequisite: WOH 6932.

International Relations

John F. Clark, *Associate Professor and Chairperson*

Majid Al-Khalili, *Lecturer*

Clair Apodaca, *Associate Professor*

Kenneth Boodhoo, *Emeritus Professor*

Thomas A. Breslin, *Professor*

Ralph S. Clem, *Professor*

Peter R. Craumer, *Associate Professor*

Francois Debrix, *Associate Professor*

Shlomi Dinar, *Assistant Professor*

Damián J. Fernández, *Professor*

Jennifer Gebelein, *Assistant Professor*

Harry D. Gould, *Assistant Professor*

Gail M. Hollander, *Associate Professor*

Vanessa Hudson, *Visiting Assistant Professor*

Antonio Jorge, *Emeritus Professor*

Paul Kowert, *Associate Professor*

Charles G. MacDonald, *Professor*

Felix Martin, *Associate Professor*

Mohiaddin Mesbahi, *Associate Professor*

Rod Neumann, *Professor*

Jeffrey A. Onsted, *Assistant Professor*

Nicholas G. Onuf, *Emeritus Professor*

Hans Petersmann, *Visiting Professor*

Patricia L. Price, *Associate Professor*

Elisabeth Prugl, *Associate Professor*

Benjamin Smith, *Assistant Professor*

Chantalle F. Verna, *Assistant Professor*

Gregory B. Wolfe, *Emeritus Professor*

Jin Zeng, *Assistant Professor*

The Department of International Relations offers two advanced degrees: a Master of Arts in International Studies and a Doctor of Philosophy in International Relations. The Department emphasizes a multi-disciplinary approach to graduate education. This emphasis reflects the many disciplines and perspectives represented in the Department, and it results in a vital and challenging exchange of ideas among students and faculty members. Together they investigate a stimulating range of topics, from the traditional concerns of foreign policy and national security to contemporary global issues such as democratization, the environment, human rights, refugees, and social movements. These scholarly inquiries are generally informed by an engagement with social and political theory, to which students are exposed through a closely coordinated set of graduate reading seminars. Many members of the Department have longstanding regional interests, as do many other members of the University faculty. The program boasts of strengths in Africa, Central Asia, East Asia, Latin America and the Caribbean, the Middle East, and Europe.

The Department of International Relations is an affiliate member of the Association of Professional Schools of International Affairs.

Master of Arts in International Studies

The MA program draws on the curricular resources of all the University's social science departments. It is designed to prepare students for careers in government, the private sector, or international agencies, or for doctoral studies.

The College of Arts and Sciences offers certificate programs in African-New World Studies, Asian Studies, Latin American and Caribbean Studies, and Transnational

and Regional Studies, among other. The graduate program encourages its MA students to pursue regional certification in conjunction with their work in the MA program.

Admission Requirements

To be considered for admission to the MA program, applicants must have a GPA of 3.0 in upper-level work, or its equivalent, from a recognized institution of higher education, and a combined score of 1000 on the verbal and quantitative sections of the Graduate Record Examination. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. Admissions requirements are minimums and even if the minimums are met, admission is not assured. Scholarships and renewable assistantships are available.

Degree Requirements

The MA program requires a minimum of 36 semester hours of credit at the graduate level. Undergraduate courses taken to satisfy prerequisites for graduate courses will not count toward the 36 hour minimum requirement. The Graduate Advisory Committee may approve the transfer of a maximum of six graduate credits earned in another recognized institution of higher education.

Core Sequence (15 credits)

All MA students must complete a core sequence of five courses (15 credits), each of which reflects a distinctive disciplinary point of view. These courses are:

GEO 6473	Space, Place and Identity
INR 6706	Political Economy of International Relations
INR 5609	Contemporary Dynamics of International Relations
INR 5615	Research Design in International Relations
INR 6017	Comparative Approaches to Area Studies and Global Issues

Major Field (9 credits)

MA students also must select a major field of study in (1) Global Institutions and Issues, or (2) International Relations and Foreign Policy, by taking three courses (9 credits) from an extensive list of approved courses in the social sciences. Students must take at least two courses offered by the Department of International Relations to satisfy the field requirement.

Electives (6 credits)

To satisfy the program's elective requirement, students may take two additional courses (6 credits) from the field lists. Students wishing to elect other graduate-level courses offered by the University may do so with permission of the Graduate Director.

Thesis and Alternatives (6 credits)

To complete degree requirements, MA students have the option of (a) writing a thesis or (b) taking a comprehensive examination. Before electing any of these options,

students must demonstrate competence in the use of a foreign language other than English.

Any student electing (a) to write a thesis will normally take 6 credit hours of thesis supervision and prepare a thesis proposal subject to the approval of three members of the University graduate faculty. A graduate faculty member of the Department of International Relations must chair any thesis committee thus constituted. No thesis may be approved until the writer has defended it in a public examination. Any student electing (b) to take a comprehensive examination must have 6 semester hours of course work in preparation for the exam. One half of the comprehensive examination will cover the core sequence of courses, and the other half will cover the student's major field.

Combined BA in International Relations/MA in International Studies

The combined BA/MA degree program allows highly qualified undergraduate students to pursue an accelerated MA degree in International Studies. Students accepted into this program will be able to complete the MA degree as much as one year sooner than would otherwise be possible. Students accepted into the International Relations Honors Track are particularly encouraged to apply for this program.

To be accepted into the combined BA/MA degree program, students must submit an MA program application by March 15 in their junior year (to apply, students must already have completed 75 credits in their undergraduate degree program). A complete application requires:

- Current enrollment in BA program in International Relations at FIU
- Completion of 75 credits of undergraduate coursework
- GRE score of 1000
- GPA of 3.5
- Two letters of recommendation
- Statement of purpose discussing research interests

All components of the application must be complete by the March 15 application date. Students should consult the graduate catalog and the International Relations Department website for a more comprehensive discussion of admission requirements. If the application is approved, students will be admitted into the combined BA/MA degree program once they have successfully completed 90 credits in their undergraduate degree program. Students in the combined BA/MA degree program must apply for their undergraduate degree as soon as possible after having satisfied the degree requirements.

The program gives students the opportunity to take up to 9 credits of graduate coursework in their senior year that will count towards both the BA and the MA. Successful completion of the BA/MA program will therefore require a total of 147 credit hours. Students will take three 5000-level graduate courses in their senior year and follow the regular MA curriculum after they earn their BA degree. A typical course of study is as follows:

Undergraduate Junior Year: apply to the program (March 15 deadline)

Undergraduate Senior Year

Fall Semester – take 12 credits, including one 5000-level course

Spring Semester – take 12 credits, including two 5000-level courses

Graduate Program

Summer – take 3 graduate credits (5000-level or higher)

Fall – take 9 graduate credits (5000-level or higher)

Spring – take 9 graduate credits (5000-level or higher)

Summer – take 6 graduate credits (thesis or comps preparation)

Students in the combined BA/MA program in International Studies must complete all other requirements for the MA degree in International Studies (please consult the graduate catalog and the Department's online graduate handbook).

Doctor of Philosophy in International Relations

The Ph.D. program is designed to prepare students for careers as scholars and teachers. It provides students with a solid theoretical foundation while allowing individual latitude for rigorous research on a wide range of subjects. Students work closely with dedicated, internationally recognized scholars.

Admission Requirements

To be considered for admission to the Ph.D. program, all applicants must have a bachelor's degree, or its equivalent, from a recognized institution of higher education, or have received a bachelor's degree before they matriculate in the program.

Applicants should have a minimum undergraduate grade point average of 3.2, or its equivalent, a minimum grade point average of 3.5 for all combined graduate work, and a combined score of 1120 on the first two sections of the Graduate Record Examination. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 90 on the iBT TOEFL (equivalent to 575 on the paper-based version, or 232 on the computer-based version of the Test of English as a Foreign Language) is required.

Applications will be reviewed only in the spring term for fall admission.

Degree Requirements

The Ph.D. requires a minimum of 75 semester hours of credit at the graduate level.

Undergraduate courses taken to satisfy prerequisites for graduate courses will not count toward the 75 hour minimum requirement. Students earning a MA degree within the last five years may count 36 credits toward the 75 hour minimum requirement. The Graduate Advisory committee may approve the transfer of a maximum of 12 graduate credits earned in a non-degree capacity at FIU.

Core Sequence (18 credits)

All Ph.D. students must complete a core sequence of six courses (18 credits). These courses are:

GEO 6473	Space, Place, and Identity
INR 5609	Contemporary Dynamics of International Relations
INR 5615	Research in International Relations
INR 6604	International Relations Theory I
INR 6608	International Relations Theory II

INR 6706 Political Economy of International Relations

Major and Minor Fields (21 credits)

Students must select a major field of study in (1) Global Institutions and Issues (2) Comparative Area Studies (3) Foreign Policy and Security Studies, or (4) International Law by taking four courses (12 credits) from a list of approved courses. Students must also offer a minor field of study consisting of at least three courses (9 credits), (a) by choosing a second field from the above list, (b) by taking a Ph.D. field in some other teaching unit of the University, or (c) by creating a field in consultation with the Graduate Director and three members of the University faculty.

Electives (21 credits)

To satisfy the Ph.D. program's elective requirement, students must take 21 credits of additional course work, including independent study courses. Students wishing to elect a course or courses offered in the University may do so with permission of the Graduate Director. Students must demonstrate an ability to use a foreign language other than English for scholarly purposes.

Comprehensive Exams

Within 6 months of completing the foreign language requirement and 60 hours of course work, students must sit for written comprehensive examinations on the core sequence and in both of their fields. Students may sit for their comprehensive examination during the term in which they complete these requirements.

Dissertation

Within 3 months of passing the comprehensive examinations, students should publicly present a dissertation proposal that is acceptable to a committee of at least four qualified scholars. Three members of the committee, including the dissertation supervisor, must be graduate faculty members of the Department of International Relations. One must be from outside the department, but inside FIU. Other members must be approved by the Graduate Director.

To complete program requirements, Ph.D. degree candidates must enroll for a minimum of 15 dissertation credits and maintain matriculation until the degree is awarded.

Joint Certificate in Integrated Marketing Communications: Latin American Certification

The Joint Graduate Certificate in Integrated Marketing Communications: Latin American Certification is an 18-hour program with two required courses each from ICAP and International Relations, plus several electives from both areas. The objective of this graduate level certificate program is to prepare working communications professionals with the skills necessary to develop and implement communications programs in Latin America. It is also appropriate to provide international relations professionals who have gained communications responsibilities with a broad overview of the basic concepts and tasks of mass communications.

Required Courses – ICAP Program

PUR 6806 Integrated Communication: Account Planning

(Prerequisite: Permission of the instructor)

PUR 6607 Advertising and Public Relations Management
(Prerequisite: PUR 6806) 3

Elective Courses – ICAP Program

MMC 6402 Theories of Mass Communication
(Prerequisite: Permission of the instructor) 3

PUR 6935 Advanced Integrated Communications Seminar
(Prerequisite: Permission of the instructor) 3

Required Courses – International Relations

INR 6107 U.S. Foreign Policy 3

INR 6609 Dynamics of International Relations in the 20th Century 3

Elective Courses – International Relations

INR 4031 The Media and International Relations 3
INR 6089 International Relations and Human Rights 3

INR 6209 Comparative Foreign Policy of Latin America 3

INR 6604 International Relations Theory I 3

INR 6606 Political Psychology of International Relations 3

Current selections from the Latin American and Caribbean Center as offered.

Course Descriptions

Definition of Prefixes

GEA-Geography-Regional (Area); GEO-Geography-Systemic; INR-International Relations;

GEA 6409 Landscapes of Violence and Healing in the Americas (3). Nation building in the Americas cycles between violence (political, economic, cultural) and healing (through magic, rituals, religion or the arts). Prerequisite: Graduate standing.

GEO 5136 Remote Sensing (3). Satellite image and aerial photo interpretation and analysis fundamentals.

GEO 5177 Topics in Geographic Information Systems (3). Geographic concepts are studied in a computer-based mapping environment. Both social and physical data are used. Students receive a background in spatial analysis and basic cartography.

GEO 5415 Topics in Social Geography (3). Topics discussed include geographic aspects of population and ethnicity, with emphasis on sources and analysis of data and pertinent concepts. Prerequisites: GEA 2000, graduate standing, or permission of the instructor.

GEO 5557 Globalization (3). Examines the transformation of the world economy and of global finance, the changing significance of sovereignty and territoriality, the effects of space-time compression on everyday life, and associated shifts in culture and identity.

GEO 6473 Space, Place and Identity (3). Explores space, place and identity in international relations. Focus is on the importance of the spatial relations instructing the politics of nationalisms, ethnicities, and genders.

GEO 6478 Critical Geopolitics (3). Explains to students new methods of and approaches to critical geopolitical analysis. Provides students with analytical tools to start investigation of geopolitical issues relevant to their research. Prerequisite: Graduate standing.

GIS 5620 Surveillance, Intelligence, and International Relations (3). This seminar focuses on the role of advanced technology in obtaining information via orbital or land-based surveillance systems on issues of international relations such as warfare and globalization. Prerequisites: Graduate standing or permission of the instructor.

INR 5012 Global Issues and Human Rights (3). Identification, articulation and clarification of global issues that affect Human Rights and the global strategies used to challenge and overcome obstacles. Prerequisite: Graduate standing.

INR 5036 Politics of Globalization (3). Intensive examination of state and global institutions that have shaped process of economic globalization. Topics include impact on sovereignty, human rights, labor and agenda-setting of large and small nation-states.

INR 5062 War, Peace and Conflict Resolution in INR (3). Explores the genesis of interstate conflict, the evolution of crisis, the outbreak of war and peace. Analyzes conflict resolution and post-conflict reconstruction processes in international relations.

INR 5072 The Media and International Relations (3). Explores impact of visual and print media on practice and theory of international relations. Encourages students to question how representation of international relations issues are produced by everyday media culture. Prerequisite: Graduate standing.

INR 5086 Islam in International Relations (3). Analysis of the role of Islam in shaping the dynamics of contemporary international relations. Emphasis on the ideological, cultural, and political role of Islamic movements and states, and their relations with the West.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5088 Feminism and International Relations (3). Familiarizes students with major theoretical traditions of feminist thinking and surveys feminist literature in the sub-fields of security studies, political economy, and global governance. Prerequisites: Graduate standing or permission of the instructor.

INR 5255 Seminar in African Development (3). Examines political, economic and social development in Sub-Saharan Africa in an international context. Introduces students to sources for research in African international development. Prerequisite: Graduate standing.

INR 5275 International Relations of the Middle East (3). Focuses on IR of the contemporary Middle East, the foreign policy of major regional states, regional conflicts, and the US and other great powers' involvement, and dynamics of social and religious movements and revolutions. Prerequisites: Graduate standing or permission of the instructor.

INR 5315 Foreign Policy Analysis (3). Comparative examination of theories of foreign policy making, emphasizing the international, domestic, and organizational contexts in which national policies are formulated and enacted. Prerequisites: Graduate standing or permission of the instructor.

INR 5352 Environment and Security (3). Examines the relationship between environmental issues and international security. Surveys such topics as resource scarcity, environmental degradation, and deforestation and their implications for national and regional security. Considers such topics as international environmental law, and international environmental regimes.

INR 5409 International Law I (3). Role of international law in the relations of states; nature, development, theory, sources of law; international personality; jurisdiction, including territory and nationality; dispute settlement.

INR 5507 International Organizations I (3). Study of international organizations and their role in international relations. Emphasis on their legal status, rule-making capacities and role in dispute settlement and maintenance of peace.

INR 5543 International Political Economy of East Asia (3). Introduction to the international political economy of East Asia with a focus on different paradigms that explain the rise and fall of the economy of a number of states in East Asia.

INR 5544 The New Asian Century (3). Critically examines Asian regional identity, Asia's role in the modern world economy, national and regional institution building, new security challenges, and the legacy of the past. Prerequisites: Graduate standing or permission of the instructor.

INR 5607 International Relations and Development (3). An analysis and conceptualization of the process of development as it takes place in the international context. Special attention given to the role of international organizations in promoting development and the manner in which differences in developmental levels conditions international relations.

INR 5609 Contemporary Dynamics of International Relations (3). Surveys the 20th century's large events and important tendencies decade by decade, as registered by intellectual and policy elites at the time.

INR 5615 Research Design in International Relations (3). Introduces graduate students to the principles of formulating and defending a compelling research design, gathering and analyzing evidence, and producing scholarship.

INR 5906 Independent Study (VAR). Directed independent research. Requires prior approval by instructor. Prerequisite: Graduate standing.

INR 5935 Topics in International Relations (3). Varies according to the instructor. Prerequisites: Graduate standing or permission of the instructor.

INR 5943 Internship in International Relations (1-6). Permits student to gain direct experience with analysis and conduct of international affairs. Work required for internship must be determined in consultation with

instructor. Prerequisites: Graduate standing and permission of the instructor.

INR 5945 Graduate Pedagogy (1). The development of teaching skills required by graduate assistants, including classroom skills, designing examinations, etc. Prerequisite: Graduate Assistants.

INR 6008 Colloquium in International Studies (3). A systemic and International Relations theory supplemented with a consideration of legal, institutional and developmental issues. Prerequisite for MIB students: INR 6603 (World Politics).

INR 6010 Global Governance (3). Surveys contemporary writings on international regimes, global civil society, the relationship of global economics and politics, changing models of world order, and intergovernmental organizations. Prerequisite: Graduate standing.

INR 6017 Comparative Approaches to Area Studies and Global Issues (3). Provides students the necessary tools to approach global issues from the comparative perspective of how they play out in different regions of the world.

INR 6019 Seminar in Comparative Area Studies (3). Examines contemporary issues in area studies, with focused attention on the interplay between domestic and international forces and the conditioning effects of global structures. Topics vary by instructor. Prerequisite: Graduate standing.

INR 6056 Environment and Development (3). Examines the relationship of development and the environment from a social theory perspective. Emphasizes Third World problems such as deforestation and soil erosion.

INR 6089 International Relations and Human Rights (3). Examination of national and international factors affecting respect for human rights. Special emphasis on international human rights groups, foreign policy, and politics of policy implementation.

INR 6107 U.S. Foreign Policy (3). Examines the structures and processes that shape U.S. policy toward other nations. Topics include: systemic constraints, state/society relations, interest groups, bureaucracy, and leadership.

INR 6209 Comparative Foreign Policy of Latin America (3). Theories, history, and political-economic dynamics of Latin American foreign policies and international relations. (S)

INR 6245 The Military, Latin America and International Security (3). Explores the supra-nationalization of the military institution in Latin America and how this has caused a transformation of its functional missions in the international and regional security and peace. Prerequisite: Graduate standing.

INR 6266 Seminar in Russian Foreign Policy (3). Close analysis of the theoretical foundation and policy evolution of Soviet/Russian role in international affairs of the 20th century.

INR 6338 Seminar in Strategic Studies (3). Close analysis of key traditional and non-traditional concepts of the field of Strategic Studies, i.e. the genesis of power, war

and peace, security and their relevance to and impact on International Relations.

INR 6406 International Law II (3). The course, which is the second of a two course graduate sequence, focuses on special topics, e.g., treaties, state responsibility, force and jurisdiction. Prerequisites: INR 5409 or permission of the instructor.

INR 6604 International Relations Theory I (3). An analysis of the traditional approaches to international relations theory, beginning with the classic works in the field. Emphasizes the philosophical and normative underpinnings of realism, idealism, liberalism and radicalism.

INR 6605 Contemporary International System (3). Study of synthetic review of theories of development and approaches to the study of development as a process of social, political, and economic change. Prerequisites: CPO 5036 and ESC 5025.

INR 6606 Political Psychology of International Relations (3). Study of psychological explanations for political behavior in international relations. Topics include: cognitive, motivational, and bureaucratic decision theories; leadership; and public opinion.

INR 6608 International Relations Theory II (3). Surveys contemporary theories of International Relations, including neorealism, theories of cooperation among states, approaches to international political economy, and critical theories.

INR 6706 Political Economy of International Relations (3). Examines contemporary theoretical and policy debates in the area of international political economy. Reviews key concepts, theories and approaches used in the study of IPE. Prerequisites: INR 6604 or permission of the instructor.

INR 6967 Preparation: Comprehensive Examination (1-9). Students prepare for comprehensive examination under the direction of a faculty member.

INR 6975 Thesis (1-6). Registration for students working on their thesis. Prerequisite: All other course work for the Master's in International Studies.

INR 7910 Pre-Dissertation Research (1-9). Students develop a dissertation proposal under the direction of a faculty member.

INR 7980 Ph.D. Dissertation (1-12). Supervised research on an original research project to be submitted in partial fulfillment of doctoral degree requirements. Prerequisites: Permission of the Major Professor and Doctoral Candidacy

Latin American and Caribbean Studies

Eduardo A. Gamarra, LACC, Director

Julissa Castellanos, LACC, Associate Director

Astrid Arrarás, LACC, Graduate Program Director

LACC Academic Advisory Committee

Irma Alonso, Economics

Maria Aysa-Lastra, Sociology/Anthropology

David Bray, Environmental Studies

Ana Roca, Modern Languages

Victor Uribe, History

The Master of Arts in Latin American and Caribbean studies (MALACS) is a multidisciplinary program that requires students to concentrate half their courses in one disciplinary or topical area. The program's main objective is to prepare graduates for careers as analysts for the public and private sectors. Many graduates also continue on to doctoral-level studies in a variety of academic disciplines. While the program is strongest in the social sciences, opportunities are available for students to also concentrate their study in the areas of cultural studies, environmental studies, history, international business, Hispanic literature and film and Bilingual Journalism. Full time students can expect to complete the program in 12-24 months. The program stresses a close faculty-student advising relationship and includes the participation of visiting scholars from Latin America, the Caribbean, and other regions.

MALACS is administered by the FIU Latin American and Caribbean Center (LACC), one of the largest area and language studies centers in the US that specializes in the region. In addition to the MALACS degree, LACC also administers joint JD/MALACS and MBA/MALACS degree programs that allow the student to receive both degrees in substantially less time than would be required to pursue each degree individually. LACC also administers partnership degree programs with the Joint Forces Staff College and the Western Hemisphere Institute for Security Cooperation (WHINSEC). More information on joint and partnership degrees is found at the end of this section.

For further information please contact LACC Graduate Program Director, Latin American and Caribbean Center, Florida International University, University Park DM 353, Miami, Florida 33199. Phone: (305) 348-2894; Fax: (305) 348-3593; email: MALACS@fiu.edu, or see the MALACS web site at <http://lacc.fiu.edu>.

Admission Requirements

Applicants must meet the following minimum admissions requirements:

1. Completed FIU graduate application.
2. A baccalaureate degree from an accredited institution for higher education, or equivalent.
3. A grade-point average of at least 3.0 on a 4.0 scale (or equivalent) for the last two years of undergraduate study and for any post baccalaureate study.
4. A combined verbal and quantitative score of at least 1000 (40th percentile) on the GRE or the equivalent percentile or higher on other exams such as EXADEP, GMAT or LSAT.
5. A statement of purpose consistent with the goals of the program.

6. Three letters of recommendation.
7. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
8. Application for M.A. assistantship or fellowship (if applicable).
9. Approval by the program admissions committee.

Note: The above admission requirements are minimums and not all students meeting them are assured admission. Students with either a grade-point average or GRE score below the above minimums may still apply and request conditional admission. The student must provide an explanation of why the waiver is being requested.

Degree Requirements

The MALACS program requires 36 graduate credits. Nine credits consist of the program's multidisciplinary gateway course (3 credits) and two research methods courses (6 credits). Twelve credits are taken in one of the MALACS concentrations. Nine credits of breadth requirements are taken from at least two other areas of MALACS concentration or from courses outside the concentrations with Latin American and Caribbean content. MALACS offers four graduation exit options (see exit options below):

1. Completion of thesis project (6 credits),
2. Participation in one semester internship and preparation of a major research paper (6 credits),
3. Completion of two directed research projects (6 credits), or
4. Completion of six (6) additional credits of Latin American and Caribbean courses and passing a comprehensive examination.

As a non-credit requirement, students must demonstrate advanced knowledge in Spanish or Portuguese or, when approved, another foreign language from Latin America or the Caribbean.

Note: The International and Comparative Law concentration is only available to students in the joint JD/MALACS degree program described below.

MALACS Course Work

A minimum of thirty credits of course work, to be selected from the approved list of MALACS graduate courses, is required. Courses must be passed with a grade of 'B' or better and distributed as follows:

1. The gateway course, LAS 6003 Survey of Latin America and the Caribbean (3 credits).
2. Two research methods courses: (1) introductory research methods course either in the student's concentration or (2) one offered by MALACS; and LAS 6930 Latin American and Caribbean Data Analysis (3 credits).
3. MALACS concentration: 12 credits (four courses) selected from the graduate offerings of the student's concentration (Andean Studies, Brazilian Studies, Caribbean Studies, Comparative Politics, Comparative Sociology, Cuban Studies, Cultural Studies, Economics, Environmental Studies, Foreign Policy and Security Studies, Haitian Studies, Hispanic Literature and Film, History, International Business, International and Comparative Law, International

Development, International Relations, or Bilingual Journalism). The 12 credits must include the concentration's introductory foundation or theory course(s) when designated.

4. Breadth requirements: nine credits (three courses) selected from the graduate offerings of at least two MALACS concentrations other than those of the student's primary concentration. Subject to approval of the LACC Graduate Program Director, up to six credits (two courses) may be selected from the graduate offerings of FIU programs outside those of the MALACS concentrations, provided the courses have substantial Latin American and Caribbean content.

FIU policy also allows the transfer of 6 graduate credits from other universities or between FIU graduate programs, provided the courses meet program subject matter requirements.

Foreign Language

Each student is required to demonstrate reading proficiency in either Spanish or Portuguese, or in another language such as French, Haitian Creole, or Dutch when justified by research interests. Proficiency demonstrated by scoring an advanced level on the ACTFL exam for Spanish, Portuguese, or French. For other languages, corresponding tests of proficiency and levels of achievement will be required.

Advanced level on the ACTFL exam (2+ on the US government scale) can normally be attained by students with six undergraduate semesters of language instruction (in basic, intermediate and advanced level). Attainment of the required language proficiency is the responsibility of the student and extra instruction to achieve the required proficiency level must be taken outside the MALACS curriculum. Fellowships and scholarships to study Portuguese and Haitian Creole are available to selected MALACS students. Opportunities for students to improve their language proficiency is provided in courses offered by the FIU Modern Languages Department, through special summer institute language programs, and by taking designated Foreign Language Across Curriculum (FLAC) courses. Completion of a FLAC course meets the MALACS language proficiency requirement.

MALACS Graduation Exit Options

1) Thesis Option

Students pursuing careers in the public or private sectors requiring strong research and analytic skills, or students planning to continue with Ph.D. studies, are encouraged to select the MALACS thesis exit option. The thesis is publicly defended and approved by a committee of three graduate faculty members. The committee chair and at least one other member must be from FIU departments offering courses in the MALACS concentrations. The committee as a whole must be drawn from at least two concentration departments. During the thesis period, students register for thesis credits (six credits minimum required) with their thesis committee chair.

2) Internship and Major Research Paper Option

As a substitute for the thesis option, students may select an internship and major research paper exit option. The internship exit option entails a one semester resident internship in either the public or private sector. Internships

are related to the student's MALACS concentration. A major professor from a department offering MALACS concentration courses supervises the internship. Internships may be arranged through LACC or by the student. Upon completion of the resident internship, the student prepares and publicly defends a major research paper related to the internship. During the internship period, students register for internship credits (six credits minimum required) with their major professor.

Directed Research Option

Another substitute for the thesis option is a directed research exit option. Students selecting this option will prepare and publicly defend two major research papers during this option. One research paper will address a topic in the student's MALACS concentration and the second paper will be a topic of more general interest to the region. Students will register for two directed research seminars (3 credits each) with their major professor(s).

Comprehensive Examination Option

A comprehensive examination exit option is available for mid-career professionals who already possess strong research and analytic skills or for those whose educational interests do not encompass a thesis or internship option. Students selecting the comprehensive examination option complete two additional courses in Latin American and Caribbean studies (6 credits required). The LACC Graduate Program Director arranges for the student to take comprehensive examinations covering the student's MALACS concentration and multidisciplinary Latin American and Caribbean issues. Students will not receive credit for the comprehensive exam.

Course Descriptions

Definitions of Prefixes

FLAC – Foreign Language Across Curriculums;

LAS – Latin American and Caribbean Studies;

SSI – Interdisciplinary Courses.

F – Fall semester offering; S – Spring semester offering;

SS – Summer semester offering.

LAS 5301 Culture and Society in the Rio de la Plata (3).

Argentinean and Uruguayan societies through an interdisciplinary approach and a series of relevant texts. Prerequisite: Permission of the instructor.

LAS 5907 Independent Study (1-3). Supervised readings or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

LAS 5920 Teaching Latin American Studies (1).

Fundamentals in the teaching of Latin American Studies. Relevance and effectiveness of various methods and strategies, as well as pedagogy-related exercises. Prerequisite: Graduate standing. (F)

LAS 5933 Graduate Seminar in Latin American Studies

(1). Exposes graduate students to interdisciplinary issues for students pursuing the MA in Latin American and Caribbean Studies. May be repeated for credit up to 3 times. Prerequisite: Graduate Standing. (F,SS)

LAS 5955 Haiti Study Abroad (3). Study abroad examination of Haitian Politics and Society. Part of Haitian Summer Institute. Prerequisite: Graduate standing.

LAS 6003 Survey of Latin America (3). A multidisciplinary, multimedia survey of the history, politics, societies and cultures of the countries of Latin America and the Caribbean. Prerequisite: Graduate standing. (F)

LAS 6025 Seminar: The Humanities in Cuba (3). Interdisciplinary graduate seminar on the development of the humanities in Cuba, focusing on the major movements, artists and works in architecture, visual arts, literature, music and dance. FLAC course. Prerequisite: Graduate Standing. (F)

LAS 6905 Directed Research in Latin American and Caribbean Studies (3). Directed research under a major professor conducted to meet MALACS graduation requirements instead of a thesis. Two directed research courses are required. Prerequisite: Completion of all MALACS courses. (F,S,SS)

LAS 6930 Latin American and Caribbean Data Analysis (3). This course introduces students to basic empirical data analysis techniques while they complete an empirical research project in a Latin American or Caribbean topic. Prerequisite: Recommend a graduate research design course. (S)

LAS 6934 Research Seminar in Latin American and Caribbean Studies (3). Introduces students to intermediate level research methods while they complete a directed research project in Latin American and Caribbean studies. Prerequisites: LAS 6930 or equivalent. (F)

LAS 6942 Internship in Latin American and Caribbean Studies (1-6). Supervised internship leading to a major research paper in Latin American and Caribbean Studies. Prerequisite: All MALACS course work completed. (F,S,SS)

LAS 6970 Thesis (1-6). Requires students to enroll for thesis research for at least one credit hour every semester until thesis is completed. Prerequisite: Completion of all MALACS courses. (F,S,SS)

MALACS Approved Courses

A sample of courses approved for each MALACS concentration is provided on the MALACS web site at <http://lacc.fiu.edu>.

Courses approved for the MALACS program are posted each semester on the FIU Class Schedule at <http://sis2.fiu.edu/> class schedule. Under Special Programs and Certificate Programs select Latin American & Caribbean Studies. All courses listed from 5000 through 7000 series may be applied to the degree program. Approved courses are also posted each semester outside LACC (DM 353) or are available from the Graduate Program Director.

MALACS Joint and Partnership Degree Programs

Joint JD/MALACS Degree Program

An agreement approved by the University Graduate School, between the FIU College of Law and the College of Arts and Sciences allows students to pursue simultaneously the Juris Doctor (JD) and MALACS degrees, thereby saving considerable time over pursuing each degree separately. Students must meet the entrance requirements for both the JD and MALACS programs. Fifteen credits from the law school curriculum will be

allowed toward the MALACS program and will constitute a MALACS concentration in International and Comparative Law. Nine credits from the MALACS program will also count toward the law school curriculum requirements. All other requirements to receive either the JD or MALACS degree must be met. Additional information on the joint degree program is available on the College of Law and MALACS web sites.

Joint MBA/MALACS Degree Program

An agreement approved by the University Graduate School, between the FIU Alvah H. Chapman, Jr. Graduate School of Business and College of Arts and Sciences allows students to pursue simultaneously the Master's in Business Administration (MBA) and MALACS. In doing so the student will finish both programs much sooner than if they pursue each degree separately. Students must meet the entrance requirements for both the MBA and MALACS programs. Twelve credits from the MBA curriculum will be allowed toward the MALACS program and will constitute a MALACS concentration in International Business. Nine credits from the MALACS program will also count toward the MBA curriculum requirements. All other requirements to receive either the MBA or MALACS degree must be met. Additional information on the joint degree program is available on the Chapman Graduate School of Business and MALACS web sites.

MALACS Partnership Degree with the Joint Forces Staff College

An agreement between FIU and the Joint Forces Staff College (JFSC) of the National Defense University allows JFSC graduates to transfer 15 JFSC credits toward the MALACS degree completion requirements. Students will receive a MALACS concentration in Foreign Policy and Security Studies from JFSC courses. Students wishing to take advantage of this partnership must be accepted into the MALACS program through normal application procedures. Once accepted, students are required to take 15 credit hours of MALACS courses (5 classes): a research methods class, LAS 6003, LAS 6930, and two breadth courses in at least two MALACS concentrations other than Security Studies. JFSC students must also complete a MALACS exit option (6 credit hours) and meet MALACS language proficiency requirements. Additional information on the JFSC partnership degree program is available on the MALACS web site.

MALACS Partnership Degree with the Western Hemisphere Institute for Security Cooperation

An agreement between FIU and the Western Hemisphere Institute for Security Cooperation (WHINSEC) allows WHINSEC graduates to transfer 15 WHINSEC credits toward the MALACS degree completion requirements. Students will receive a MALACS concentration in Foreign Policy and Security Studies from WHINSEC courses. Students wishing to take advantage of this partnership must be accepted into the MALACS program through normal application procedures. Once accepted, students are required to take 15 credit hours of MALACS courses (5 classes): a research methods class, LAS 6003, LAS 6930, and two breadth courses in at least two MALACS concentrations other than Security Studies. WHINSEC students must also complete a MALACS exit option (6 credit hours) and meet MALACS language proficiency requirements. Additional information on the WHINSEC

partnership degree program is available on the MALACS web site.

Liberal Studies

Kiriake Xerohemona, *Lecturer and Graduate Program*

Director

Sean Allen-Hermanson, *Assistant Professor*

Michelle Beer, *Associate Professor*

Bongkil Chung, *Professor*

Kenton Harris, *Lecturer and Assistant Dean*

Bruce Hauptli, *Professor*

Kenneth Henley, *Professor*

George Kovacs, *Professor*

Jennifer Matey, *Assistant Professor*

Kenneth Rogerson, *Professor*

Ingvild Torsen, *Assistant Professor*

Jon Trearise, *Lecturer*

Paul Warren, *Associate Professor*

Master of Arts in Liberal Studies

The Master of Arts in Liberal Studies (MALS) program is designed for students who possess a strong desire for intellectual growth and challenge and an interest in interdisciplinary research. It offers students individualized programs of graduate study that transcend traditional disciplinary boundaries and yet lie squarely within the venerable tradition of liberal education.

The MALS curriculum includes three sets of activities:

1. Students take a least three **Great Ideas Seminars**, in which they study the books, theories, and discoveries that have had the greatest impact on the humanities, the natural sciences, and the social sciences.
2. Students undertake an **Interdisciplinary Concentration** consisting of at least six courses spanning three different disciplines unified by a theme chosen by the student in consultation with an advisor.
3. Students complete a **Capstone Project** – either a **Master's Thesis** or a shorter **Master's Essay** – on a topic related to the unifying theme of their Interdisciplinary Concentration.

Unlike many graduate programs in Liberal Studies, which have no departmental "home," the MALS program at FIU is housed in the **Department of Philosophy**, whose members (listed above) have responsibility for coordinating the program, teaching and arranging guest lectures for the Great Ideas Seminars, helping students develop their Interdisciplinary Concentrations, and ensuring that Capstone Projects are supervised by appropriate experts.

Degree Requirements

Thirty-three semester credit hours of course work and a cumulative GPA of 3.0 are required for the MALS degree.

Great Ideas Seminars*	9
Interdisciplinary Concentration*	18
Master's Essay or Master's Thesis	3 or 6

*33 hours are required of all MALS students. Students who receive 3 hours for a Master's Essay instead of 6 hours for a Master's Thesis must complete either four Great Ideas Seminars (12 hours) or a 21 hour Interdisciplinary Concentration.

A prospective MALS student may have already completed some graduate level courses either at FIU or elsewhere. Such graduate work may count towards the

MALS degree and in particular towards the student's Interdisciplinary Concentration if the following conditions are satisfied.

1. The student received a grade of "B" or better in those courses.
2. Those courses are approved by the student's advisor and the Graduate Program Director. To obtain such approval, the courses must be appropriately related to the theme unifying the student's Interdisciplinary Concentration.
3. No more than six graduate semester hours can be transferred from another university.

Admission Requirements

To be admitted into the MALS program, a student must:

1. Hold a bachelor's degree from an accredited college or university;
2. Have a grade point average of 3.0 or better in upper-level work;
3. Obtain a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Exam (GRE);
4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required; and
5. Submit a substantial writing sample that is judged by the MALS admissions committee to be of satisfactory quality.

Combined Bachelor/Master of Arts in Liberal Studies

The combined (4+1) Bachelor/Master of Arts in Liberal Studies offers outstanding undergraduate FIU students in majors such as Philosophy and Liberal Studies the opportunity to earn a Masters degree in only one additional year beyond the BA degree.

The (4+1) program represents two distinct patterns:

1. Philosophy to MALS. This option allows students to complement the undergraduate major with graduate study in another area.
2. Liberal Studies to MALS. This option allows students to complement the undergraduate major with graduate study in the same discipline as the undergraduate study.

Applicants to the accelerated program need a GPA of 3.20. Formal admission to the accelerated program is usually in the first semester of the senior year. Students would be also required to maintain a GPA of at least 3.20 to remain in the program. Participation in this program allows the students to fulfill some graduate program requirements during their senior year. More specifically, students at the senior level may be allowed to earn up to 9 graduate credits that will count towards their MALS degree. Up to 3 graduate courses (9 credits) may be used to satisfy both the Bachelor and Masters degree requirements. All double counted courses must be at the 5000 level or higher. Courses to be allowed to be double counted must be approved by MALS. Before starting the graduate program students must have satisfied all general education and core requirements.

The curriculum for the (4+1) MALS will meet criteria identical to those of the MALS program. A student will not be eligible for assistantship funding before completing all requirements for the Bachelors degree. For the double counted courses, students must, in consultation with their graduate program advisor, approve that the student is taking the course for graduate credit. Graduates and undergraduates may have different work loads and grading criteria. The student must earn a grade of "B" or better for these courses to count towards the Masters requirements.

Admission Requirements

- (1) Current enrollment in a bachelors degree in Philosophy or Liberal Studies.
- (2) Completed at least 90 credits hours of coursework.
- (3) Current GPA of a 3.25 or higher.
- (4) Application to the Department to enroll in the (4+1) MALS program that will include
 - (a) Three letters of recommendation
 - (b) Personal statement [2-3 pages] describing goals and objectives in seeking a combined accelerated degree
 - (c) A 8-25 pages writing sample of satisfactory quality
- (5) On-line application to the University Graduate School for admission to the MALS program.
- (6) Positive evaluation by the undergraduate program director.
- (7) Approval of the graduate admissions committee.
- (8) In addition to the admission requirements of the (4+1) MALS program, students must meet all the admission requirements of the University Graduate School.

Completion Requirements

- (1) Completion of both the required courses for the BA (33 credits and the required courses for the MALS (33 credits).
 - (a) For the Philosophy to MALS pattern, either 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences may be used to satisfy both the Bachelors and Masters degree.
 - (b) For the Liberal Studies to MALS pattern, either the 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences may be used to satisfy both the Bachelors and Masters degree.
- (2) The bachelor's degree must be awarded when the student completes the requirements for the degree. In other words, the bachelor's degree must be awarded before the master's degree.
- (3) Students in the (4+1) MALS program have up to one year to complete the Master's degree after receipt of the bachelor's degree.
- (4) Students who fail to meet the one year post BA requirement or who elect to leave the (4+1) MALS program at any time and earn only the BA degree will have the same access requirements to regular graduate program as any other student, but will not be able to use the 9 credits in both the bachelor's and the master's degrees.

Summary of Degree Requirements

Great Ideas Seminars:	9 hours (minimum*)
Interdisciplinary Concentration:	18 hours (minimum*)

Master's Essay or Master's Thesis: 3 hours or 6 hours

Total Hours: 33 hours or 36 hours

*33 hours of coursework are required of all (4+1) MALS students. However, a maximum of 3 hours is awarded for the "Master's Essay" course as opposed to 6 hours for "Master's Thesis" course. Students who choose the Essay option must complete either 4 Great Ideas Seminars or a 21 hour Interdisciplinary Concentration.

Course Descriptions

Definition of Prefixes

IDS – Interdisciplinary Studies.

F-Fall semester offering; S-Spring semester offering

IDS 6931 Great Ideas Seminar: The Age of Science (3).

Great ideas from the natural sciences. Study of the historical development, the evidential basis, and the broader implications of those ideas. Reflection on the nature and methods of modern science. Prerequisite: Graduate standing.

IDS 6937 Great Ideas Seminar: Special Topics (3).

Intensive interdisciplinary investigation of a single great idea such as natural selection or infinity. Study of that idea's cross-disciplinary development, its impact, and its uses and misuses. Prerequisite: Graduate standing.

IDS 6938 Great Ideas Seminar: Human Nature (3).

Great religious, philosophical, and scientific ideas about human nature. Discussion of the view that human beings have no nature. Study of such thinkers as Confucius, Plato, Darwin, Freud, Skinner, and Sartre. Prerequisite: Graduate standing.

IDS 6939 Great Ideas Seminar: Politics and Society (3).

Great ideas in political and social thought from Plato to the present. Topics include political obligation, the nature of the state, social and economic justice, social contract, liberty, the rule of law, and community. Prerequisite: Graduate standing.

IDS 6972 Master's Essay (1-3).

For students working on a master's essay. Oral presentation required. Prerequisite: All other coursework for the Master of Arts in Liberal Studies Degree.

IDS 6973 Master's Thesis (1-6).

For students working on a master's thesis. Prerequisites: Graduate standing and permission of the instructor.

Linguistics

Feryal Yavas, *Lecturer and Director, English*

Lynn M. Berk, *Professor Emerita, English*

Jean-Robert Cadely, *Assistant Professor, Modern Languages*

Tometro Hopkins, *Associate Professor, English*

John B. Jensen, *Professor, Modern Languages*

Peter A. Machonis, *Associate Professor, Modern Languages*

Ana Roca, *Professor, Modern Languages*

Ellen Thompson, *Associate Professor, English*

Mehmet Yavas, *Professor, English*

Master of Arts in Linguistics

Admission Requirements

Applicants must meet the University's Graduate general admissions requirements; GPA of minimum 3.0, two letters of recommendation, and an essay on the reasons for pursuing an M.A. in Linguistics. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 100 on the iBT TOEFL (equivalent to 600 on the paper-based version of the Test of English as a Foreign Language) is required.

Degree Requirements

The Master of Arts in Linguistics requires 36 graduate hours in Linguistics. Twenty-one of the 36 hours are in required courses, the remainder in electives. Beside maintaining an overall 3.0 average in all courses, students must also obtain a minimum of a 'B' in each of the required courses ('B-' is not acceptable in these courses) and a minimum of a 'C' in each elective course a ('C-' is not acceptable). Course work will be as follows:

Required Courses (15)

LIN 5018	Introduction to Linguistics
LIN 5206	Phonetics
LIN 6323	Phonology
LIN 6510	Syntax I
LIN 6805	Semantics

A minimum of one course from each of the following groups:

Structure Courses (3)

LIN 5501	English Syntax
LIN 5431	Morphology
SPN 5705	Structure of Spanish
FRE 5855	Structure of French
LIN 6572	Structure of a Non Indo-European Language
LIN 6520	Syntax II
LIN 5574	Languages of the World

History Courses (3)

LIN 5107	History of the English Language
LIN 5146	Historical and Comparative Linguistics
SPN 5845	History of the Language
FRE 5845	History of the Language

The remaining hours must be selected from other Linguistics (LIN) graduate offerings. Certain non-linguistics courses can be accepted with the approval of the Linguistics Committee.

Foreign Language Requirement

Students with no background in foreign languages will be required to take LIN 6572 "Structure of a Non-Indo-European Language" as a part of their 36-hour program.

Examination Requirement

Students will be required to take a written comprehensive exam in the core areas of Linguistics. For any student who is writing a thesis and has a GPA of 3.7 or above, the thesis defense will constitute the comprehensive exam.

Thesis/Non-Thesis Options

Students may elect to follow a thesis or a non-thesis option. Those electing to write a thesis will take up to six credit hours in thesis research as part of their required 36 hours. When completed, the thesis will be defended orally before a committee made up of three graduate faculty members, including the thesis director. Those electing to follow the non-thesis option will take all 36 hours in non-thesis courses.

Combined BA/Master of Arts in Linguistics

Admission Requirements

- Enrollment in undergraduate program in English, Spanish, French, or Portuguese at FIU.
- Must apply during the first semester of senior year with 90 credits completed.
- Must have completed LIN 3013/LIN 3010 *General Linguistics*, LIN 4680 *Modern English Grammar*, FRE 3780 *French Phonetics*, or SPN 3733 *General Linguistics* with a grade of "A".
- Current GPA of 3.2 or higher.
- Two letters of faculty recommendation.
- A 2-4 page statement of purpose, explaining academic plans and goals.
- Student will begin MA program in second semester of senior year.

Recommended Graduate Courses to Undergraduates

The following graduate courses are recommended to BA students. In order to complete their degree requirements, students may double-count up to 12 graduate credits of coursework toward the Bachelor's and M.A. degrees:

A. English

LIN 5018	Introduction to Linguistics*
LIN 5501	English Syntax**
LIN 5107	History of the English Language***
LIN 5715	Language Acquisition
LIN 6602	Language Contact
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5934	Special Topics in Linguistics

B. Spanish

LIN 5018	Introduction to Linguistics*
SPN 5705	The Structure of Spanish**
SPN 5845	History of the Language***
LIN 5604	Spanish in the United States
SPN 5736	Spanish as a Heritage Language:

	Acquisition and Development
LIN 5603	Language Planning: Linguistic Minority Issues
LIN 5601	Sociolinguistics

LIN 5720	Second Language Acquisition
LIN 5825	Pragmatics
LIN 5934	Special Topics in Linguistics

C. French

LIN 5018	Introduction to Linguistics*
FRE 5855	Structure of Modern French**
FRE 5845	History of the Language I***
FRE 5846	History of the Language II
FRE 5508	La Francophonie
FRE 5735	Special Topics in Linguistics
HAI 5235	Haitian Creole Seminar
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5720	Second Language Acquisition
LIN 5934	Special Topics in Linguistics

D. Portuguese

LIN 5018	Introduction to Linguistics*
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5720	Second Language Acquisition
LIN 5934	Special Topics in Linguistics

*MA core requirement – prerequisite to all other course requirements

**Fulfills the 'structure course' requirement of MA

***Fulfills the 'history course' requirement of MA

M.A. Degree Requirements**1. Course Work** (36 graduate credit hours)

Core Courses: (a minimum of "B" is required in core courses)

LIN 5018	Introduction to Linguistics
LIN 5206	Phonetics
LIN 6323	Phonology
LIN 6510	Syntax I
LIN 6805	Semantics

One History Course:

LIN 5107	History of the English Language
LIN 5146	Historical and Comparative Linguistics
SPN 5845	History of the Language
FRE 5845	History of the Language I

One Structure Course:

LIN 5501	English Syntax
SPN 5705	The Structure of Spanish
FRE 5855	Structure of Modern French
LIN 6572	Structure of a Non-Indo-European Language

LIN 5574	Languages of the World
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LIN 5431	Morphology
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LIN 6520	Syntax II
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Electives: 5 LIN prefixed graduate courses

2. M.A. Comprehensive Exams

In the final semester of studies, M.A. students must pass comprehensive exams in Syntax, Semantics, Phonetics, and Phonology.

3. Awarding of Degrees

- The BA will be awarded as soon as all BA requirements of the designated undergraduate program are completed.
- The MA will be awarded after all MA requirements of the Linguistics Program and the BA requirements are completed.

Course Descriptions**Definition of Prefixes**

LIN - Linguistics.

F-Fall semester offering; S-Spring semester offering

LIN 5017 Cognitive Linguistics (3). Explores the nature of human reason and categorization as revealed by language. Examines the role of metaphor, imagination, and bodily experience in human thought processes. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5018 Introduction to Linguistics (3). Introduction to linguistic theory and analysis, with special emphasis on the major components of languages and modern approaches to their analysis. (F)

LIN 5019 Metaphor, Language, and Literature (3). Examines nature of metaphor as a cognitive phenomenon; how we use metaphor to conceptualize basic physical and cultural notions; role of cognitive metaphor in literature. Prerequisites: LIN 3013 or LIN 5018.

LIN 5107 History of the English Language (3). Study of the development of the grammar and vocabulary represented in samples of the English language from the 8th century to modern times. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent. (F)

LIN 5108 Language Universals (3). Universal properties of language from two major perspectives: those of Typologists and of Universal Grammarians. A variety of linguistic structures and theoretical explanations are examined. Prerequisites: LIN 3013, or LIN 3010, or LIN 5018, or the equivalent.

LIN 5146 Historical and Comparative Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Diachronic syntax and its methodology will be included. The relevance of historical and comparative linguistics to similar processes found in language acquisition and to socio-linguistics will be studied. Prerequisite: LIN 5206.

LIN 5206 Phonetics (3). The study of the articulatory mechanisms used in producing speech sounds and of their acoustic properties. Ear training in the phonetic transcription of speech sounds used in the world's languages. (F)

LIN 5207 Acoustic Phonetics (3). Introduction to principles of acoustic and instrumental phonetics, including the physics of speech sounds and use of the sound spectrograph and other instruments. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent, plus one additional course in phonetics or phonology. Co-requisite: One of the prerequisites may be counted as a co-requisite.

LIN 5211 Applied Phonetics (3). Study of sounds and suprasegmentals of English. Comparison of phonetic features of English with those of other languages. Universal constraints and markedness in learning second/foreign language pronunciation. Prerequisites: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIN 5431 Morphology (3). The study of linguistic methodology for determining the morphological and syntactic structures of languages. Distinct theoretical approaches to analysis will be emphasized. Recent

developments in linguistics that bear on language-universal and language-specific aspects of morphology. Prerequisite: LIN 6323.

LIN 5501 English Syntax (3). This course will focus on syntactic analysis of English. Although the course itself is non-theoretical, it uses a variety of underlying theoretical approaches to train students in syntactic analysis. (F,S)

LIN 5574 Languages of the World (3). Introduces the student to the richness of human linguistic diversity while demonstrating concurrently the underlying universality of human language. Prerequisites: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIN 5601 Sociolinguistics (3). Principles and theories of linguistic variation with special attention to correspondences between social and linguistic variables. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5603 Language Planning: Linguistic Minority Issues (3). Introduction to the field of language planning. Minority linguistic issues in developing and developed nations: official languages, endangered languages, and language as problem and/or resource. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5604 Spanish in the United States (3). An examination of the sociolinguistic research into Spanish in the U.S.: varieties of Spanish, language attitudes, language contact and change, and aspects of language use. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5613 Dialectology (3). The geography of language variation: linguistic geography, atlases, national and regional studies. Dialectology within a modern sociolinguistic framework; research approaches. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5715 Language Acquisition (3). The study of the processes underlying normal first-language acquisition. The focus is on the development of the subsystems of language (i.e., the phonological, morphological, syntactic, and semantic subsystems) in the child's growing command of his or her native language.

LIN 5720 Second Language Acquisition (3). Research, theories, and issues in second language acquisition. Topics include the Monitor Model, the role of the first language, motivation, age, individual differences, code-switching, and the environment; affective variables and attitudes.

LIN 5732 Speech Errors and Linguistic Knowledge (3). This course focuses on the nature of linguistic errors produced by speakers in their native languages. Students will read research on errors produced by adult native speakers of a language, on first-language errors of children, and on errors made by persons acquiring a second language.

LIN 5733 Methods of Teaching Accent Reduction (3). Theory and methods regarding the teaching of pronunciation to non-native speakers of a language. Hands-on practice in helping non-native speakers improve their pronunciation. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5734 Teaching Linguistics (1). Introduces graduate students to pedagogical issues and strategies in the teaching of linguistics. Topics include textbook selection, writing syllabi, student assessment, and professional ethics. Prerequisite: Graduate standing.

LIN 5748 Survey of Applied Linguistics (3). Application of linguistics to problems in many fields, such as literature, translation, criminal justice, speech pathology, computer science, communications, public policy, and language instruction. Prerequisites: LIN 3010 or LIN 3013 or LIN 5018 or the equivalent.

LIN 5760 Research Methods in Language Variation (3). Research in sociolinguistics, dialectology, bilingualism: problem definition, instrument design, data collection and analysis, including sampling techniques and statistical procedures. Prerequisites: LIN 5601, LIN 5625, LIN 5613 or other course in variation.

LIN 5825 Pragmatics (3). Study of the relationships between language form, meaning, and use. Special emphasis on speech act theory. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5934 Special Topics in Linguistics (3). Content to be determined by instructor. May be repeated for credit when content changes. Prerequisites: LIN 3010, LIN 3013, or LIN 5018.

LIN 6323 Phonology (3). The study of phonological processes in languages and linguistic methodology for phonological analysis. Emphasis will be placed on recent theoretical questions concerning such issues as the abstractness of underlying forms, the naturalness of processes, and the relevance of markedness to a phonological description. Prerequisite: LIN 5206, Phonetics. (S)

LIN 6510 Syntax I (3). This course will expose students to the theoretical models on which much contemporary work in English grammar is based. Students will read works on selected topics such as structural linguistics, transformational grammar, and case grammar. Specific content may change from semester to semester. May be re-taken for credit when content changes. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent. (S)

LIN 6520 Syntax II (3). In-depth analysis of contemporary theories of syntax. May be repeated for credit with content changes. Prerequisite: LIN 6510. (F)

LIN 6562 Discourse Analysis (3). The study of the organization of language above the sentence level, such as conversational interactions and written texts. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 6572 Structure of a Non-Indo-European Language (3). An in-depth study of the structure of a non-Indo-European language. The particular language to be studied will be varied from semester to semester. Course may be

repeated. Prerequisites: LIN 5018, LIN 5206, LIN 5222, and a course in syntax.

LIN 6602 Language Contact (3). A study of the language changes that occur when two or more languages come into contact with one another. The course will also examine the characteristics of the individuals and communities involved in such contact.

LIN 6706 Current Research Methods in Psycholinguistics (3). Review of current research in psycholinguistics, including adult production and comprehension, first and second language acquisition, and language disorders. Students conduct original research in one of these areas. Prerequisites: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIN 6805 Semantics (3). The study of linguistic semantics. Language-universal and language-specific properties of the semantic structure of words and sentences will be considered. Students will be exposed to a variety of approaches to the study of meaning. Prerequisites: Introductory course in Linguistics or permission of the instructor. (S)

LIN 6905 Independent Study (VAR). This course is designed for students who wish to pursue specialized topics in advanced Linguistics: phonetics, phonology, morphology, syntax, semantics, psycholinguistics, historical linguistics, or language contact. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 6934 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.)

LIN 6937 Seminar in Linguistics (3). Topics vary each semester. Prerequisite: A previous course in the same sub-area of Linguistics.

LIN 6971 Thesis (1-6). Prerequisite: Completion of all other requirements for the M.A. degree in Linguistics.

Mathematics

Julian Edward, *Associate Professor and Chairperson*

Gerardo Aladro, *Associate Professor*

Chongsheng Cao, *Assistant Professor*

Laura DeCarli, *Associate Professor*

Tedi Draghici, *Associate Professor*

Domitila Fox, *Instructor*

Susan Gorman, *Instructor*

Gueo Grantcharov, *Associate Professor*

Steven M. Hudson, *Associate Professor*

George Kafkoulis, *Associate Professor*

Solange Kouemou, *Lecturer*

Mark Leckband, *Associate Professor*

Thomas Leness, *Associate Professor*

Bao Qin Li, *Professor*

Diana McCoy, *Instructor*

Abdelhamid Meziani, *Professor*

Richard Nadel, *Instructor*

Taje Ramsamujh, *Associate Professor*

David Ritter, *Associate Professor*

Michael Rosenthal, *Instructor*

Alireza Rostamian, *Instructor*

Dev K. Roy, *Associate Professor*

Martha Royer, *Instructor*

Richard L. Rubin, *Associate Professor*

Philippe Rukimbira, *Professor*

Carmen Shershin, *Instructor*

Robert Storfer, *Instructor*

Theodore Tachim Medjo, *Associate Professor*

Louis Roder Tcheugoue Tebou, *Associate Professor*

Enrique Villamor, *Professor*

Anna Wlodarczyk, *Instructor*

Yi Zhi Yang, *Instructor*

Mirroslav Yotov, *Assistant Professor*

John Zweibel, *Associate Professor*

Master of Science in Mathematical Sciences

Admission

The following are in addition to the University's graduate admission requirements:

1. Bachelor's degree in mathematics, applied mathematics or mathematical sciences from an accredited university or college.
2. A 'B' average or higher in upper division mathematics courses.
3. Graduate Record Examination taken within the past five years, with at least 650 on the quantitative portion and 500 on each of the other two parts.
4. Three letters of recommendation concerning the candidate's achievement and potential, from persons familiar with the candidate's previous academic performance.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
6. Approval of the Graduate Committee.

Option 1

The student must complete a minimum of 24 semester hours of graduate course work. This course work must include 5 courses from the following two lists, with at least 2 from each list.

List A:

MAA 5406	Complex Analysis	3
MAA 5616	Introduction to Real Analysis	3
MAP 5316	Ordinary Differential Equations	3
MAS 5311	Graduate Algebra	3
MAS 5312	Galois Theory	3
MHF 5107	Graduate Set Theory	3
MHF 5306	Graduate Mathematical Logic	3
MHF 5325	Theory of Recursive Functions	3
MTG 5326	Introduction to Algebraic Topology	3
MAP 5415	Introduction to Fourier Analysis	3

List B:

MAD 5405	Numerical Methods	3
MAP 5236	Mathematical Techniques of Operations Research	3
MAP 5326	Partial Differential Equations	3
MAP 5407	Methods of Applied Analysis	3
MAS 5145	Applied Linear Algebra	3
MAP 5467	Stochastic Differential Equations	3
STA 5446	Probability Theory I	3
STA 5447	Probability Theory II	3

Electives

The remaining 9 hours of course work will be used to fashion a coherent program of study best suited to the student's needs and interest. This requires the prior approval of the Graduate Committee and may be done in one or a combination of the following ways: a) Further work from lists A and B. b) A maximum of 2 courses of independent study, taken with Mathematical Sciences faculty. c) Graduate level course work in Engineering, Physics or Statistics.

Master's Project

The student will complete his or her graduation requirements by writing an expository paper under the direction of a faculty member. The student may earn six credit hours (MAT 5970 Master's Research) in preparing the project. Successful completion of the Master's project requires a grade of 'B' or higher, as well as approval of a committee consisting of three mathematics faculty (including the director).

Remarks: The course work must be completed with a 3.0 or higher Grade Point Average (GPA) and a grade of 'C' or higher in each course. A maximum of six graduate semester hours may be transferred into the program from outside the University, subject to the approval of the Graduate Committee. A total of 30 credit hours is required for graduation.

Option 2

The student must complete a minimum of 30 semester hours of graduate course work. This course work must include 7 courses from List A and List B in Option 1, with at least 3 courses from each list.

Electives

Same as in Option 1.

Option 2 has no Master's Project requirement

Remarks: The course work must be completed with a 3.0 or higher Grade Point Average (GPA) and a grade of 'C' or higher in each course. A maximum of six graduate semester hours may be transferred into the program from outside the University, subject to the approval of the Graduate Committee. A total of 30 credit hours is required for graduation.

Risk Analysis and Management Track

This new track will consist of 12 one-semester three credit graduate courses, and one optional elective during the last semester of the program. The degree will be completed in 12 months. Full time students will take four courses per semester to complete the program in three semesters.

Admission Requirements

Admission requires a Bachelor's in Mathematics or related fields. In addition, applicants must satisfy conditions 3 through 5 in the admission requirements for our Master of Science in Mathematical Sciences, and have a GPA of at least 3.0 in undergraduate studies, admission to the program requires applicants to have a firm grasp of mathematics at a high undergraduate level. This means calculus through multivariable calculus, linear algebra and differential equations. Knowledge in probability, statistics, computer programming, economics, or finance is recommended but not required. A student with promise but lacking prerequisites may be admitted but required to take one or more preparatory courses during their first semester.

Degree Requirements

The new track in Risk Analysis and Management (RAM for short) requires 36 credits. The student must take 12 graduate credits, 3 credits each.

Course Requirements**Fall Term**

MAP 6635	Risk Analysis and Management I	3
FIN 6428	Corporate Finance	3
COP 6007	Computer Programming Concepts	3

A course from List I below (to be chosen based on the class' background)

Spring Term

MAP 6218	Stochastic Calculus	3
MAP 6636	Risk Analysis and Management II	3

A course from List I below (to be chosen based on the class' background)

MAD 5405	Numerical Methods	3
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Summer Term

MAP 6632	PDE in Risk Analysis and Management	3
MAP 6637	Risk Analysis and Management III	3
ECO 7429	Topics in Econometrics	3
FIN 6515	Security Analysis	3

or

FIN 6426	Financial Management Policies	3
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List I

MAP 5204	Optimization and Linear Algebra	3
MAA 5616	Introduction to Real Analysis	3
STA 6326	Mathematical Statistics I	3
STA 3033	Introduction to Probability and Statistics for CS	3

Combined BS in Mathematics/MS in Mathematical Sciences

This program will allow strong students in mathematics to complete a bachelor's degree and a master's degree in 5 years rather than the usual six. A minimum of 140 credits are required for graduation with both the bachelor's and the master's degree. In addition to fulfilling the requirements for the Bachelor's degree in mathematics, these 140 credits include 30 graduate credits required for the Master's of Science in Mathematical Sciences. A maximum of ten (10) graduate mathematics credits can be concurrently used toward the bachelor's and master's degrees. All doubled counted courses must be at the 5000 level or higher. The combined BS/MS program has been designed to be a continuous program. However, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees.

Admission Requirements

1. Current enrollment in a Bachelor's degree program in mathematics.
2. Current overall GPA of at least 3.2 and GPA of at least 3.2 in upper division courses.
3. Completion of 90 undergraduate credit-hours.
4. A minimum combined (verbal and quantitative) GRE score of 1000 to be obtained before entering the MS phase of the program.
5. Approval of the graduate committee.
6. Applicants should apply for admission to the combined program by the end of the first semester of their senior year. Students must submit an on-line application to the University Graduate School for admission to the MS program.

Completion Requirements**Year 1 and 2:**

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Calculus III
MAS 3105	Linear Algebra
MAP 2302	Ordinary Differential Equations

Year 3**Fall**

MAA 3200	Introduction to Advanced Mathematics
STA 4321	Introduction to Mathematical Sciences I

One course from List 1 or 2

Spring

MAA 4211	Advanced Calculus
MAS 4301	Algebraic Structures

One course from List 1 or 2

Summer

One course from List 1 or 2 and 1 graduate course

Year 4**Fall**

MAA 5616	Introduction to Real Analysis
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One course from List 1 or 2

Senior Seminar (1 credit)

Spring

One graduate course
Two courses from List 1 or 2

Summer

Three graduate credits

Year 5**Fall**

Nine graduate credits

Spring

Nine graduate credits

The graduate courses distribution should follow catalog descriptions of the master's program requirements. Students must take at least 3 courses from List 1 and at least 3 courses from List 2. The balance of the 140 semester hours required for graduation may be chosen from any courses in the university, a minimum of six (6) of these should be at the upper division level or higher.

List 1

MAD 4203	Introduction to Combinatorics	3
MAA 4402	Complex Variables	3
MTG 3212	College Geometry	3
MAS 4203	Number Theory	3
MAA 4212	Topics in Advanced Calculus	3
MAS 4302	Topics in Algebraic Structures	3
MTG 4302	Topology	3

List 2

MAP 4401	Advanced Differential Equations	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
STA 4322	Mathematical Statistics II	3
MAD 3401	Numerical Analysis	3
MHF 4302	Mathematical Logic	3
MHF 4102	Axiomatic Set Theory	3

Course Descriptions**Definition of Prefixes**

MAA-Mathematics, Analysis; MAD-Mathematics, Discrete; MAP-Mathematics, Applied, COT-Computing Theory.

COT 5420 Theory of Computation I (3). Abstract models of computation; halting problem; decidability and undecidability; recursive function theory. Prerequisite: MAD 3512.

COT 6400 Analysis of Algorithms (3). Complexity behavior of algorithms is described for Set Manipulation, Graph Theory, and Matrix Manipulation problems, among others. P and NP classes of problems reveal an inherent difficulty in designing efficient algorithms. Prerequisite: COP 3530.

MAA 5406 Complex Analysis (3). Harmonic functions, normal families, Riemann mapping theorem, univalent functions, infinite products and entire functions, elliptic functions, analytic continuation. Prerequisites: MAA 4211 and MAA 4402.

MAA 5616 Introduction to Real Analysis (3). Lebesgue Measure and Integral with applications to Integral Transforms. Prerequisites: MAS 3105, MAA 4211, MAP 4401 or MAA 4212.

MAD 5405 Numerical Methods (3). Advanced ideas and techniques of numerical analysis for digital computation. Topics include: linear and non-linear systems, ordinary differential equations, continuous system modeling techniques, and languages. Prerequisites: MAS 3105 and MAP 2302.

MAP 5204 Optimization and Linear Algebra (3). Vectors, Euclidean spaces, operations on matrices, rank, determinants, linear and quadratic programming, Kuhn,

Tucker techniques for constrained optimization. Prerequisite: MAC 2313.

MAP 5236 Mathematical Techniques of Operations Research (3). This course surveys the mathematical methods used in operations research. Topics will be chosen from linear programming, dynamic programming, integer programming, network analysis, classical optimization techniques, and applications such as inventory theory. Prerequisites: MAP 5117 and MAS 3105 and either CGS 3420 or COP 2210.

MAP 5316 Ordinary Differential Equations (3). Existence and uniqueness theorem, matrix formulation, physical applications, regular singular points, autonomous systems, Laplace transform, special topics. Prerequisites: MAA 3200, MAA 4402 and MAS 3105.

MAP 5317 Advanced Differential Equations for Engineers (3). Topics may include Bessel Functions and other special functions arising from classical differential equations, Sturm-Liouville problems, partial differential equations, transform techniques. Credit may not be counted for both MAP 4401 and MAP 5317. Credit for MAP 5317 may not be applied toward the Master's degree in Mathematical Sciences. Prerequisites: MAC 2313 and MAP 2302.

MAP 5326 Partial Differential Equations (3). Basic concepts of first and second order PDE's, application to optics and wave fronts, Cauchy problem, Laplace equation, Green's function, Dirichlet problem, heat equation. Prerequisite: MAA 4211

MAP 5407 Methods of Applied Analysis (3). Convergence, fixed point theorems, application to finding roots of equations, normed function spaces, linear operators, applications to numerical integration, differential and integral equations. Prerequisites: MAA 4211, MAP 2302, and MAS 3105.

MAP 5415 Introduction to Fourier Analysis (3). Basic real analysis, and measure theory, LP spaces and convolution, the Fourier transform in L^2 , Plancherel theorem, application to differential equations and wavelets. Prerequisites: Advanced Calculus, Linear Algebra.

MAP 5467 Stochastic Differential Equations and Applications (3). Review of measure theory, stochastic processes, Ito Integral and its properties, martingales and their generalizations, stochastic differential equations, diffusions. Applications to boundary value problems and finance. Prerequisites: MAS 3105, MAP 4401, MAA 4211, MAA 5616 or permission of instructor.

MAP 6218 Stochastic Calculus (3). Discrete time models, Brownian motion, stochastic integration, ITO's integral, Ornstein-Uhlenbeck processes, Girsanov theorem, Black-Sholes model. Prerequisites: STA 4321 or equivalent.

MAP 6630 Numerical Methods in Risk Analysis and Management (3). Quadrature methods, numerical solutions to ODEs and PDEs, Monte Carlo method, applications to asset pricing. Prerequisites: Calculus 3, Matrix Algebra, Diff. Equations.

MAP 6632 PDE in Risk Analysis and Management (3). Deterministic and stochastic optimization, dynamic programming, Hamilton-Jacob, equation, forward and

backward Kolmogorov equation, Feynman-Kac formula. Prerequisites: Stochastic Calculus, Differential Equations, Calculus 3, Matrix Algebra.

MAP 6635 Risk Analysis and Management I (3). Basic probability, Martingales, Black-Scholes models, Black-Scholes formula, American options. Prerequisites: MAC 2313, MAS 3105, STA 4321. Corequisites: STA 4321 or equivalent.

MAP 6636 Risk Analysis and Management II (3). Discrete and continuous time models, application of stochastic integrals and Ito's Lemma to Finance, Risk of Neutral Valuation. Prerequisite: MAP 6635.

MAP 6637 Risk Analysis and Management III (3). Continuous time Risk Management. Arbitrage pricing theory. Exotic options. Interest rate models. Yield curves and pricing of interest rate derivative. Prerequisite: MAP 6636.

MAS 5145 Applied Linear Algebra (3). Vector spaces and linear maps, solutions of linear systems, orthogonal projection and QR factorization, determinant and eigenvalues of a matrix. Prerequisites: MAS 3105 and MAA 3200.

MAS 5311 Graduate Algebra (3). A study of the basic material on groups, rings and vector spaces. Topics include the Jordan-Hölder theorem, structure of modules over Euclidean domains and canonical forms of matrices. Prerequisites: MAS 4301 or equivalent.

MAS 5312 Galois Theory (3). Extension fields, ruler and compass constructions, fundamental theorem of Galois Theory, cyclotomic and cyclic extensions, solutions of equations by radicals, selected topics. Prerequisites: MAS 5311 or permission of the instructor.

MAT 5907 Independent Study (VAR). Individual conferences, assigned reading, and reports on independent investigations.

MAT 5921 Training in Mathematical Exposition (1). Students prepare and present supervised lectures on undergraduate mathematical topics to fellow students. Prerequisite: Graduate standing.

MAT 5970 Master's Research (1-6). Research toward preparation of master's project. Prerequisite: Permission of graduate committee.

MHF 5107 Graduate Set Theory (3). Zermelo-Frankel axioms, ordinals and cardinals, Gödel's constructible universe, large cardinals, forcing and the independence of the Continuum Hypothesis and the Axiom of Choice. Prerequisites: MHF 4102 or MAA 4211 or permission of the instructor.

MHF 5306 Graduate Mathematical Logic (3). First order languages, construction of models from constants, advanced construction of models, non-standard models, recursion theory, RE sets, Turing degrees, oracle construction. Prerequisites: MHF 4302 or permission of the instructor.

MHF 5325 Theory of Recursive Functions (3). Turing machines, decision problems, coding, s-m-n theorem, Rice's and Myhill's theorems, oracles, degrees, finite and infinite injury constructions. Prerequisite: MHF 4302 or COT 5420.

MTG 5326 Introduction to Algebraic Topology (3). Classification of surfaces, fundamental group, homotopy type, Van Kampen theorem, simplicial complexes, introduction to homology theory. Prerequisites: MAS 4301 and MTG 4302.

STA 5446-STA 5447 Probability Theory I and II (3-3). This course is designed to acquaint the student with the basic fundamentals of probability theory. It reviews the basic foundations of probability theory, covering such topics as discrete probability spaces, random walk, Markov Chains (transition matrix and ergodic properties), strong laws of probability, convergence theorems, and law of iterated logarithm. Prerequisite: MAC 2313.

STA 6807 Queueing and Statistical Models (3). Review of probability concepts, basic probability distributions, Poisson process, queueing models, statistical models. Prerequisites: Permission of the instructor, MAC 2312 and either STA 3033 or STA 4321.

Modern Languages

Pascale Bécel, *Associate Professor and Chairperson*

Aurelio Baldor, *Instructor*

Jean-Robert Cadely, *Associate Professor*

Erik Camayd-Freixas, *Associate Professor*

Ricardo Castells, *Professor*

James O. Crosby, *Professor Emeritus*

Maria Antonieta Garcia, *Instructor*

Myriam Garcia, *Instructor*

Maria Asuncion Gomez, *Associate Professor*

Yvonne Guers-Villate, *Professor Emeritus*

Asuka Haraguchi, *Instructor*

Santiago Juan-Navarro, *Associate Professor*

John B. Jensen, *Professor*

Naoko Komura, *Instructor*

Ma Li, *Instructor*

Peter A. Machonis, *Associate Professor*

Marian Montero-Demos, *Associate Professor*

Magda Pearson, *Instructor*

Ana Roca, *Professor*

Renee Silverman, *Assistant Professor*

Juan Torres-Pou, *Associate Professor*

Augusta Vono, *Instructor*

Maida Watson, *Professor*

Marcelle Welch, *Professor*

Master of Arts in Spanish

Admission Requirements:

To be admitted into the Master's degree program, a student must:

1. Hold a Bachelor's degree in Spanish from an accredited university or college. Special cases, such as holders of a degree in a related field, will be evaluated individually by the Department.

2. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

3. Have attained a minimum 3.0 grade point average (B average), during the last two years of her/his undergraduate program as determined by the FIU Graduate Admissions Office.

4. Demonstrate the ability to speak Spanish with near-native fluency and to write in Spanish. Demonstrate the ability to read English with excellent proficiency. An examination may be necessary. Contact the Director of Graduate Study (305-348-2851; Modern Languages, FIU, Miami, FL, 33199). Students with deficiencies will be required to complete certain course work before beginning graduate study.

5. Apply for graduate admission to the Graduate Admissions Office and submit to the Department of Modern Languages the following documentation: a) two letters of recommendation from former professors in the format required by the Graduate Studies Committee, b) a resume, c) a statement of purpose in English or Spanish, addressing the candidate's goals and objectives in pursuing a doctorate in Spanish, and d) a writing sample in Spanish, preferably a term paper or thesis, of analytical nature, on a literary subject.

6. Receive approval of the departmental graduate committee. **Admission is competitive and meeting all minimum requirements does not guarantee automatic entrance into the program.**

Degree Requirements

The Master's degree program consists of 33 semester hours of graduate level work. A maximum of six credits of graduate course work may be transferred into the program from other institutions, subject to the approval of the departmental graduate committee. Six core courses and three elective courses are required at the 5000-and 6000-level. Some courses have prerequisites which do not count toward the degree. All core courses in literature must be taken with or after SPW 5806. Courses taken before SPW 5806 are considered to be electives.

Core Courses (18 credits)

SPW 5806	Methods of Literary Research (<i>must be taken in the first year of study</i>)	3
SPN 5705	The Structure of Spanish	3
One course in peninsular Spanish Literature of the 19 th or 20 th centuries.		3
One course in either Medieval Spanish Literature or Literature of the Golden Age.		3
Two courses in Spanish American Literature. (Colonial or 20 th century)		6

Electives

A student must take at least nine graduate credits of electives, as follows: three in Spanish or Latin American literature, and six from one or more of the following areas: Spanish or Spanish American literature, Linguistics, Translation/Interpretation, or Culture of Spain, Latin America or Hispanics in the United States.

Graduation Requirements

To receive the M.A. degree in Spanish, a student must complete all the course work with a 3.0 GPA or higher, and receive a minimum grade of 'B' in every course. Upon completion of 27 graduate credits (core and elective courses), students will have the option of writing a thesis (equivalent to six credits), or taking two elective courses and writing a research paper. The thesis will be presented to an ad hoc committee chosen by the student and his or her advisor. The research paper must be submitted to a committee of two professors of the Department. Upon completion of 33 credits, the student will be required to take Comprehensive Examinations, based on course work and on the Department's Graduate Reading List (the exams must be passed with a minimum grade of 'B'; they may be taken no more than twice).

Combined Bachelor of Arts/Master of Arts in Spanish

Admission Requirements

- Current enrollment in the BA in Spanish at FIU.
- Current GPA must be 3.5 or higher.
- Completed at least 90 credits of course work.
- Two letters of recommendation.
- A writing sample consisting of a research paper in Spanish of an analytical nature – preferably a term paper or thesis – on a literary subject.
- A resume

- A statement of purpose, addressing the candidate's goals and objectives in pursuing a master's degree in Spanish.
- Approval of the Spanish Graduate Committee.

Completion Requirements

Required Courses for the BA (33 credits)

SPN 3301	Review Grammar and Writing*	3
	or	
SPN 3341	Advanced Spanish for Native Speakers*	3
SPN 3422	Advanced Grammar and Composition*	3
SPW 3820	Peninsular Spanish Literature	3
SPW 3130	Spanish American Literature	3
SPN 3733	General Linguistics (or equivalent)	3
	One additional course in Spanish Linguistics	3
	One additional course in Spanish	3
	or	
	Spanish American Literature	3

*(Students who have advanced proficiency in Spanish may replace the six language credits with electives in Spanish at the 3000 or 4000 level with the written permission of their advisors).

Electives

Twelve credits of electives

Overlap

Nine credits will be taken at the 5000 or 6000 level and may be used to satisfy both the Bachelor's and Master's degree requirements.

Required Courses for the MA (33 credits)

SPW 5806	Methods of Literary Research	3
SPN 5705	The Structure of Spanish	3
	One course in either Medieval Spanish Literature	3
	or	
	Literature of the Golden Age	3
	One course in Peninsular Spanish Literature of the 19 th or the 20 th centuries	3
	Two courses in Spanish American Literature	12

Electives

Six graduate credits of electives, as follows: 3 in Spanish or Spanish American Literature, and 3 from one or more of the following areas: Spanish or Spanish American Literature, Linguistics, Translation/Interpretation, or Spanish American Culture.

Comprehensive Exams

The comprehensive examinations should be taken the semester immediately following the completion of all course work.

Doctor of Philosophy in Spanish

The doctoral program in Spanish offers students the opportunity to specialize in one of two major fields: Peninsular Spanish Literature or Spanish American Literature. Minors are available in Peninsular Spanish Literature, Spanish American Literature, and Hispanic Linguistics.

Admission Requirements

To be admitted to the doctoral program, a student must:

1. Hold a Bachelor's degree in Spanish from an accredited college or university. Special cases, such as

holders of a degree in a related field, will be evaluated individually by the Department.

2. Demonstrate the ability to speak, understand, read, and write in Spanish with near-native fluency. Demonstrate the ability to speak and read in English with excellent proficiency. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

3. Have attained a minimum 3.0 grade point average (B average), during the last two years of her/his undergraduate program as determined by the FIU Graduate Admissions Office, and attain a score of at least 1120 on the GRE, or score 500 or better in the EXADEP. Applicants with Master's degrees are required to have a graduate GPA of 3.5. A GPA of 3.5 in graduate Spanish courses is expected in such cases.

4. Apply for graduate admission to the Admissions Office and submit to the Department of Modern Languages the following documentation: a) two letters of recommendation from former professors in the format required by the Graduate Studies Committee, b) a resume, c) a statement of purpose in English or Spanish, addressing the candidate's goals and objectives in pursuing a doctorate in Spanish, and d) a writing sample in Spanish, preferably a term paper or thesis, of analytical nature, on a literary subject.

5. Receive approval of the departmental Graduate Studies Committee. **Admission is competitive, and meeting all minimum requirements does not guarantee automatic entrance to the program.**

Degree Requirements

The doctoral program consists of 90 semester hours of graduate level work beyond the Bachelor's degree, distributed as follows: 66 graduate credits of courses and 24 credits of dissertation. Students holding Master of Arts degrees in Spanish or Hispanic Studies will be considered for admission and some or all of their graduate credits may be counted toward the doctoral degree after being evaluated and approved by the Graduate Studies Committee. Students will be able to transfer a maximum of 36 graduate credits from an earned graduate degree.

Core Courses (12 credits)

All core courses must be taken as graduate courses offered by the university and may not be taken as independent studies:

1. SPW 5806 Methods of Literary Research
2. SPN 5705 The Structure of Spanish
3. SPW 6718 Historiography of Literature
4. SPW 6825 Literary Theory and Criticism

Distribution Requirement (15 credits)

All students must take:

- One course in Medieval or Golden Age Peninsular Spanish Literature
- One course in Peninsular Spanish Literature of the 18th, 19th or 20th century
- One course in Colonial/19th century Spanish American Literature
- One course in 20th century Spanish American Literature
- One additional course in Spanish American Literature

Major Field (18 credits)

All students must take at least 18 credits of electives in their elected field of specialization.

Minor Field (12 credits)

Twelve credits of electives in the student's chosen field (Peninsular Spanish Literature, Spanish American Literature, or Hispanic Linguistics).

Electives (9 credits)

Students may choose from graduate courses in literature, linguistics, culture, and translation/interpretation.

Dissertation (24 credits)**Graduation Requirements**

To receive a Ph.D. in Spanish, a student must complete all courses with a GPA of 3.0 or higher, and receive a minimum grade of 'B' in every course. Before graduation the student must demonstrate a reading knowledge of a language other than English or Spanish, chosen by the student in consultation with her/his adviser. Upon completion of 33 graduate credits beyond the Bachelor's degree, students must take a qualifying written examination which will determine whether they are permitted to continue their studies toward the doctorate or whether they should be terminated, with or without a master's degree. In the case of students registered for the master's degree, the M.A. comprehensives will also serve as a qualifying examination for the Ph.D. Following completion of the course work, students are required to take written and oral doctoral comprehensive examinations. They must be passed with a minimum grade of 'B' and may not be taken more than twice. A student is formally considered a doctoral candidate upon successful completion of the comprehensive examinations and the acceptance of a dissertation proposal. Students must write and successfully defend a doctoral dissertation before a committee of three faculty members, two of whom must be from the graduate program faculty.

Course Descriptions**Definition of Prefixes**

FOL-Foreign Languages; FOT-Foreign Languages in Translation; FOW-Foreign Languages, Comparative Literature; FRE-French Language; FRT-French Translation; FRW-French Literature (Writings); GER-German Language; LIN-Linguistics; POR-Portuguese Language; SPN-Spanish Language; SPT-Spanish Translation; SPW-Spanish Literature (Writings).
(See English listing for additional Linguistics courses.)
Application of basic language skills.

FIL 5825 Spanish Film (3). The history of film in Spain and discussions of films by the most important 20th Century directors.

FIL 5846 Latin American Film (3). The study of 20th Century films and documentaries produced by leading Latin American directors. Films are examined in relation to Latin American Society and its literary creations.

FOL 5735 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 5906 Independent Study (1-3). Project, field experience, readings, or research.

FOL 5945 Foreign Exchange Internship (0). Foreign exchange students perform graduate research in the Department of Modern Languages and English as a co-requisite to their assistantship in the Modern Languages Department.

FOT 5125 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

FOT 5805 Translation/Interpretation Arts (3). The language barrier and translation and interpretation. Types, modes, and quality of T/I: philological, linguistic, and socio-linguistic theories. History of T/I from Rome to date. The impact of T/I on Inter-American developments. Prerequisites: Graduate standing or permission of the instructor.

FOW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 5545 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 5587 Comparative Studies (3). Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.

FOW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by students and teacher.

FOW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

FRE 5060 Language for Reading Knowledge I (3). Designed primarily for graduate students who wish to attain proficiency for M.A. and Ph.D. requirements. Open to any student who has no prior knowledge of the language.

FRE 5061 Language for Reading Knowledge II (3). Emphasis on translation of materials from the student's field of specialization. Prerequisites: FRE 5060 or equivalent.

FRE 5508 La Francophonie (3). Analysis of the different varieties of French spoken outside of France. Includes Quebec French, African French, and French Creoles. Also examines the political alliance of Francophone countries. Credit will not be given for both FRE 4503 and FRE 5508. Prerequisite: Graduate standing.

FRE 5735 Special Topics in Linguistics (3). Content to be determined by students and instructor. Prerequisite: Graduate standing.

FRE 5755 Old French Language (3). Introduction to the phonology, morphology, and syntax of the Old French language. Reading and analysis of the 12th and 13th century texts in their original. Comparison of major medieval dialects. Prerequisite: Graduate standing.

FRE 5845 History of the Language I (3). The internal and external history of the French language from Latin to Old French. Examination of some of the first texts written in French. Credit will not be given for both FRE 4840 and FRE 5845. Prerequisite: Graduate standing.

FRE 5846 History of the Language II (3). External and internal history of the French language from 1400 to the present. Examination of first dictionaries and grammars of French. Survey of recent linguistic legislation concerning the French language. Credit will not be given for both FRE 4841 and FRE 5846. Prerequisite: Graduate standing.

FRE 5855 Structure of Modern French (3). Systematic study of the phonology, morphology, syntax, and lexicon of Modern French. Taught in English. Credit will not be given for both FRE 4850 and FRE 5855. Prerequisite: Graduate standing.

FRE 5908 Independent Study (1-3). Project, field experience, readings, or research. Prerequisite: Graduate standing.

FRT 5805 Translation/Interpretation Arts (3). Techniques of professional translation and interpretation. Prerequisite: FRT 4801.

FRW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama). Prerequisite: Graduate standing.

FRW 5934 Special Topics in Language Literature (3). Content and objectives to be determined by student and instructor. Prerequisite: Graduate standing.

FRW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. Prerequisite: Graduate standing.

GER 5060 German for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

GER 5061 German for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisites: GER 5060 or the equivalent.

HAI 5235 Haitian Creole Seminar (3). A study of the phonological and morpho-syntactic structures of Haitian Creole. Patterns of language usage and attitude. Prerequisite: Graduate standing.

LIN 5207C Acoustic Phonetics (3). Introduction to principles of acoustic and instrumental phonetics, including the physics of speech sounds and use of the sound spectrograph and other instruments. Prerequisites: LIN 3010, LIN 3013, or SPN 3733, or the equivalent, plus one additional course in phonetics or phonology. Co-requisite: One of the prerequisites may be counted as a co-requisite.

LIN 5601 Sociolinguistics (3). Principles and theories of linguistic variation with special attention to correspondences between social and linguistic variables. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5603 Language Planning: Linguistic Minority Issues (3). Introduction to the field of language planning. Minority linguistic issues in developing and developed nations: official languages, endangered languages, and language as problem and/or resource. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5604 Spanish in the United States (3). An examination of the sociolinguistic research into Spanish in the U.S.: varieties of Spanish, language attitudes, language contact and change, and aspects of language use. Prerequisites: LIN 3010, LIN 3013, or SPN 3733 or the equivalent.

LIN 5613 Dialectology (3). The geography of language variation: linguistic geography, atlases, national and regional studies. Dialectology within a modern sociolinguistic frame work; research approaches. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5720 Second Language Acquisition (3). Research, theories, and issues in second language acquisition. Topics include the Monitor Model, the role of the first language, motivation, age, individual differences, code-switching, and the environment; affective variables and attitudes.

LIN 5760 Research Methods in Language Variation (3). Research in sociolinguistics, dialectology, bilingualism: problem definition, instrument design, data collection and analysis, including sampling techniques and statistical procedures. Prerequisites: LIN 5601, LIN 5625, LIN 5613 or other course in variation.

LIN 5825 Pragmatics (3). Study of the relationships between language form, meaning, and use. Special emphasis on speech act theory. Prerequisites: LIN 3010, LIN 3013, or SPN 3733 or the equivalent.

LIN 6571 Discourse Analysis (3). The study of the organization of language above the sentence level, such as conversational interactions and written texts. Prerequisites: LIN 3010, LIN 3013, or the equivalent.

LIN 6934 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.) (See English listing for additional Linguistics courses.)

SPN 5060 Language for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

SPN 5061 Language for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisites: SPN 5060 or the equivalent.

SPN 5525 Spanish American Culture (3). A graduate survey of the major artistic phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisites: Graduate standing and permission of the instructor.

SPN 5536 Afro-Cuban Culture (3). Explores the role played by blacks in Cuban culture. Issues studied include: Afro-Cuban religions, languages, and music, as well as the Afro-Cuban presence in literature and the arts.

SPN 5537 Special Topics in Afro-Hispanic Culture (3). Close examination of various topics related to the culture of African diaspora groups in the Hispanic world.

SPN 5705 The Structure of Spanish (3). An introduction to Spanish linguistics. Topics include Spanish phonetics, phonology, morphology, and syntax. Students who have previously taken Syntactic Structures of Spanish and/or Sound Structure of Spanish will not receive credit for this course. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5725 Syntactic Structures of Spanish and English (3). An in-depth study of syntactic structures in Spanish and English, with an emphasis on how linguistic theory can account for the similarities and differences between the two languages. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5736 Spanish as a Heritage Language: Acquisition and Development (3). Examines applied linguistics research and practice concerning acquisition, retention and literacy development of Spanish as a minority or heritage language in the United States. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent or permission of instructor.

SPN 5805 Morphological Structures of Spanish and English (3). A survey of the morphologies of Spanish and English. Topics include the difference between isolating and synthetic languages, rich vs. impoverished agreement, and syntactic ramifications of morphology. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5807 Syntactic Structures of Spanish (3). The study of syntactic structures in Spanish, topics include different syntactic approaches to current issues in Spanish syntax. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5824 Dialectology of the Spanish Caribbean (3). Study of varieties of Spanish used in the Caribbean area, including Miami-Cuban Spanish. The course will take historical and contemporary perspectives and will involve research among informants in South Florida. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5845 History of the Language (3). Historical development of the Spanish language, primarily from the point of view of internal linguistic change. Spanish as an example of general processes of language development. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5908 Independent Study (1-3). Project, field experience, readings, or research.

SPN 6505 Spanish Culture (3). Selected development in language, literature, art, music, film, and the social institutions of Spain. Prerequisites: Graduate standing or permission of the instructor.

SPN 6535 Hispanic Culture in the U.S. (3). Readings in literature, culture, and language to illustrate the experience of the major Hispanic groups in the United States. Prerequisites: Graduate standing or permission of the instructor.

SPN 6795 Phonological Structure of Spanish (3). Approaches to current issues in Spanish phonology. Linguistic methodology for the analysis of phonological processes in Spanish. Prerequisite: Graduate standing.

SPN 6825 Hispanic Dialectology (3). A study of the principal varieties of the Spanish language in the Spanish-speaking world, with special emphasis on Latin American Spanish. Prerequisite: Graduate standing.

SPN 6930 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.)

SPN 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of the Department.

SPN 7980 Ph.D. Dissertation (1-12). Research toward the completion of a doctoral dissertation. Repeatable. Prerequisite: Permission of the Major Professor and Doctoral Candidacy.

SPT 5118 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

SPT 5715 Hispanic Women Writers in Translation (3). Readings and analysis of Spanish and Spanish American women writers in translation. Emphasis on cultural and linguistic considerations involved in the translation of literary texts. Prerequisites: Graduate standing or permission of the instructor.

SPW 5135 Spanish American Literature for Teachers (3). Overview of major trends in Spanish American literature. Especially designed for school teachers and majors in modern language education. Not for M.A. or Ph.D. Spanish majors. Prerequisite: Permission of the instructor.

SPW 5155 Comparative Studies (3). Cross-over and distinctiveness in a multi language problem, period, or aesthetic.

SPW 5225 Textual Reading and Analysis (3). Studies how texts are constructed, the role played by Poetics and Rhetoric in their formulation, and the context in which they were produced. Prerequisite: Graduate standing.

SPW 5237 The Traditional Spanish American Novel (3). Study and analysis of the traditional Spanish novel as a form of art, from 19th century Lizardi's "El periquillo sarriento", to 1950. The novels and authors studied are representative of 'costumbrismo', 'romanticismo', 'naturalismo', 'modernismo', and 'criollismo'.

SPW 5277 Twentieth Century Spanish Narrative (3). Analysis of the Spanish novel from Ferlosio's "El Jarama" to the present. The perspective will be focused within historical, social, and artistic context. Representative authors such as Cela, Martin Santos, Umbral, Delibes, Benet, Goytisolo, and others will be included.

SPW 5286 Contemporary Spanish American Novel (3). A study of the Spanish American Novel from 1950. The course will intensively and extensively focus on the novelists who are best known for their innovations, defining and analyzing the qualities which give originality and newness both in themes and language.

SPW 5346 Poetry of Jorge Guillen (3). Selected readings from the five volumes of "Aire nuestro". Emphasis on the techniques of close reading and explication. Related selections from Guillen's literary criticism.

SPW 5358 Graduate Seminar: Prose and Poetry of Jorge Luis Borges (3). Close readings of short stories and poetry. Emphasis on Borge's linguistic and cultural pluralism and the interplay of philosophy with fabulation.

SPW 5359 Graduate Seminar: Poetry of Pablo-Neruda (3). Chronological examination of the major works of Chile's Nobel Laureate. Related readings from Neruda's *Memories*. Emphasis on the poet's linguistic and aesthetic innovations.

SPW 5387 Women and Poetry (3). Women as poets and the poeticized. Close reading of Peninsular and Latin American texts, 16th - 20th Century. Students examine the contributions of women and how they have been represented in poetry. Prerequisites: 4000 or 5000 level course in Hispanic poetry.

SPW 5396 History of Cuban Cinema (3). Overview of Cuban Cinema, from its origins to the present.

SPW 5405 Medieval Spanish Literature (3). Readings in Medieval literature of Spain including the epic, the learned poetry of the XIIIth and XIVth Centuries, and the literature of Juan II's court. Prerequisites: Graduate standing or permission of the instructor.

SPW 5407 The Renaissance in Spain (3). Readings in the literature and cultural expressions of the Spanish Renaissance. Prerequisites: Graduate standing or permission of the instructor.

SPW 5425 Quevedo: Poetry (3). Close reading of selected poems by Spain's greatest baroque poet and creator of modern Spanish satire, including poems on love, death, and metaphysical concerns, and a wide range of humorous poems.

SPW 5426 Quevedo: Prose Satire (3). Close reading of selected satires in prose by Spain's greatest baroque satirist and creator of modern Spanish satire. Includes Quevedo's picaresque novel "El Buscon", and his "Suenos", or "Visions of Hell".

SPW 5428 Theatre in Calderon and Lope (3). The creation of verbal theatrical technique in the Baroque masters Calderon de la Barca and Lope de Vega.

SPW 5436 Poetry Writing in Spanish (3). Readings from Spanish and Latin American texts; description and recreation of traditional and experimental metrics. Students will exchange critiques of original poems. Prerequisites: sample of unpublished poems; word-processing literacy; permission of the instructor.

SPW 5475 19th Century Latin American Literature (3). A study of the main literary works of Spanish speaking 19th Century Latin America: Romanticism, Realism, Naturalism and Modernism. Prerequisites: Upper level and graduate standing.

SPW 5486 Modern Spanish Women Writers (3). Analysis of narrative works by Spain's most representative women writers from the 19th century to the present. Emphasis on the novel. Includes works by Pardo Bazan,

Matute, Laforet, Martin Gaité. Prerequisites: Graduate standing or permission of the instructor.

SPW 5515 Advanced Studies in Hispanic Folklore (3). Studies the oral literary and linguistic tradition of the Hispanic world. Prerequisites: Graduate standing or permission of the instructor.

SPW 5535 Spanish Romanticism (3). Study of Spanish Romanticism through the analysis of major literary figures of the movement: Larra, Zorrilla, Espronceda, Castro and Becquer. Prerequisite: Graduate standing.

SPW 5546 Hispanic Neoclassicism (3). Study of major Spanish and Spanish-American Neoclassic writers: Cadalso, Moratin, Jovellanos, Carrio de la Vandra, Mier and Lizardi. Prerequisite: Graduate Standing.

SPW 5556 Spanish Realism and Naturalism (3). Readings in Spanish XIXth Century Novel of Realism and Naturalism including Alarcón, Perez Galdos, Pardo Bazan, Clarin and Blasco Ibanez. Prerequisites: Graduate standing or permission of the instructor.

SPW 5575 Spanish American Modernism (3). An in-depth study of prose and poetry of one of the most important periods of Spanish American literature, focusing on Martí, Dario, Nájera, Casals, Silva, Valencia, Lugones, and Herrera y Reissig.

SPW 5585 Learning Technology in Spanish Pedagogy and Research (3). Exploration of the role of technology in today's language and literature learning environment. Overview of the WWW, Network-based communication, and electronic databases related to Hispanic language and literature. Prerequisites: Graduate standing or advanced undergraduate with permission of the instructor.

SPW 5595 Magical Realism and Typologies of Non-Realist Fiction (3). Theories of magical realism, fantastic and non-realist fiction, focusing on narrative technique. Authors may include Onetti, Borges, Cortázar, Asturias, Carpentier, Rulfo, Márquez, Allende or others. Prerequisites: Graduate standing or permission of the instructor.

SPW 5606 Cervantes (3). A comprehensive introduction to the master-pieces of Cervantes as the creator of the modern novel, and to critical theories about his art.

SPW 5729 Major Writers of the Generation of '98 (3). Study of the social and political circumstances of Spain at the turn of the XIX Century, and analysis of the work of Ganivet, Azorin, Baroja, Machado, Maeztu, Unamuno and Valle-Inclán. Prerequisites: Graduate standing or permission of the instructor.

SPW 5735 Hispanic Literature of the United States (3). Readings in the literature of Hispanics in the United States. Prerequisites: Graduate standing or permission of the instructor.

SPW 5756 Mexico in Poetry (3). Close reading of modern poets; discussion of essays on Theory and Practice. Students examine national representation in myth, symbol and metaphor. Prerequisites: 4,000 or 5,000 level course in Culture of Literature.

SPW 5776 Black Literature in Latin America (3). An examination of the different genres in Latin American literature focusing on the life of Afro-Hispanics, from the

beginning of this literary tradition to the present time.
Prerequisite: Graduate standing.

SPW 5781 The Representation of Women in Spanish Literature and Film (3). Study of cinematographic adaptations of Spanish novels, plays and short stories. Analyzes the representation of the female subject in both literary and film works. Prerequisites: Graduate standing or permission of the instructor.

SPW 5786 Spanish American Women Writers (3). Through a selection of poems, plays and novels, this course studies Spanish American women production from Independence to the present times. Prerequisite: Graduate students only.

SPW 5806 Methods of Literary Research (3). Introduction to bibliography, methods of research, the composition of essays, rhetoric, and the presentation of documentation. Theory of literary criticism, and its practical application to texts in Spanish.

SPW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by student and instructor.

SPW 6238 Spanish American Historical Novel (3). The evolution of the historical novel in Spanish America from the Romantic period to the present. Stylistic, literary, and theoretical analysis of selected traditional and recent historical novels. Prerequisite: Graduate standing.

SPW 6216 Golden Age Prose (3). Analysis of representative prose works from 16th and 17th century Spain. Emphasis will be on the picaresque novel, the pastoral novel, autobiography, and the short story. Prerequisite: Graduate standing.

SPW 6335 Golden Age Poetry (3). An examination of major poetics (1450-1650); emphasis on historical/cultural contexts. Prerequisite: Graduate standing.

SPW 6345 Twentieth Century Spanish Poetry (3). Close reading of two of the greatest poets of the 20th century (Jorge Guillen; F. Garcia Lorca) and of major voices from the Generation of 1927 and from post-Franco Spain. Emphasis on cultural contexts. Prerequisite: Graduate standing.

SPW 6366 Studies in the Spanish American Essay (3). Stylistics of the essay, neoclassic to postmodern, as reflecting the intellectual spirit of the times. Analysis of arguments and methods of cultural epistemology in Bolivar, Marti, Paz and others. Prerequisite: Graduate standing.

SPW 6367 Prose and Poetry of Jose Marti (3). Study of Jose Marti's prose and poetry within the aesthetic and ideological contexts which characterize the discourse of Spanish American Modernism. Prerequisite: Graduate standing.

SPW 6368 19th Century Spanish-Caribbean Narrative (3). Studies the most popular literary trends of 19th century literature through the works of various Spanish-Caribbean writers. Prerequisite: Graduate standing.

SPW 6389 Cuban Novel and Short Story (3). Critical reading of representative texts of the Cuban novel and short story from XIX century to contemporary narrative

expressions, within historical, social and artistic context.
Prerequisite: Graduate standing.

SPW 6395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry,) or the study of interaction between literary types (e.g. novel and drama).

SPW 6495 The Latin American Experience Literature and Film (3). Literary and cinematic representations of significant periods in the formation of Latin American politics, culture, and identity. Prerequisite: Graduate standing.

SPW 6716 Seminar in Galdós (3). An in-depth study of the novels by Benito Pérez Galdós. Stylistic and theoretical analysis of a selection of Galdós' works, especially his novelas españolas contemporáneas (contemporary Spanish novels). Prerequisite: Graduate standing.

SPW 6775 Literature of the Spanish Caribbean (3). Close readings of representative texts of the literature of the Dominican Republic, Cuba and Puerto Rico. Emphasis on the characteristics of the literary discourse within the context of a regional literature. Prerequisite: Graduate standing.

SPW 6825 Literary Theory and Criticism (3). Study of the theoretical foundation of literature and contemporary systems of critical approach to literary discourse. Prerequisite: Graduate standing.

SPW 6826 The Historiography of Literature (3). Methodology and theory in the writing of literary history: periodization, continuity and change, literature in intellectual history. Prerequisite: Graduate standing.

SPW 6936 Graduate Seminar (3). Topic and approach to be determined by students and instructor. Prerequisite: Approval of the Department.

SPW 7910 Pre-Dissertation Research (1-9). Enables students to concentrate on completion of their dissertation prospectus during the term in which they take Ph.D. comprehensive exams. Prerequisite: Completion of all other Ph.D. coursework.

Physics

Walter Van Hamme, *Professor and Chairperson*
 Werner Boeglin, *Associate Professor*
 Richard A. Bone, *Professor*
 Prem Chapagain, *Assistant Professor*
 Yesim Darici, *Associate Professor*
 Rudolf Fiebig, *Professor*
 Bernard Gerstman, *Professor*
 Kenneth Hardy, *Professor Emeritus*
 Laird H. Kramer, *Associate Professor*
 Wenzhi Li, *Assistant Professor*
 Pete C. Markowitz, *Professor*
 Oren Maxwell, *Professor*
 Stephan L. Mintz, *Professor*
 Rajamani Narayanan, *Associate Professor*
 Brian A. Raue, *Associate Professor*
 Jorge Reinhold, *Associate Professor*
 Jorge L. Rodriguez, *Visiting Assistant Professor*
 Misak Sargsian, *Associate Professor*
 Jeffery M. Saul, *Assistant Professor*
 John W. Sheldon, *Professor Emeritus*
 Caroline E. Simpson, *Associate Professor*
 Xuewen Wang, *Associate Professor*
 James R. Webb, *Professor*
 Jiandi Zhang, *Associate Professor*
 Yifu Zhu, *Professor*

Master of Science in Physics

The Master of Science in Physics is a 45 semester hour program consisting of course work at the 5000 and 6000 level and research with one of the departmental research groups culminating in a master's thesis. Students entering the program must have a bachelor's degree or equivalent course work in Physics.

Graduate Admission Requirements

For admission to the graduate programs, a Bachelor's degree in physics is required with a minimum undergraduate GPA of 3.0. The GRE is required. The minimum acceptable score is 1000 points for verbal and quantitative combined. The GRE advanced is recommended. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.5 overall on the IELTS is required.

Required Courses

PHY 5115	Mathematical Physics I	3
PHZ 5156	Computational Physics	3
PHY 5240	Advanced Classical Mechanics	3
PHY 5346	Advanced Electromagnetic Theory I	3
PHY 5347	Advanced Electromagnetic Theory II	3
PHY 6645	Advanced Quantum Mechanics I	3
PHY 6646	Advanced Quantum Mechanics II	3
PHY 6XXX	Advanced Topics	3
PHY 6524	Statistical Physics	3
PHY 6935	Graduate Research Seminar	3-6

In addition, three semester hours of specialized course work are required in the student's area of specialization and 12-15 hours of thesis work for a total of 45 hours.

Doctor of Philosophy in Physics

The Doctor of Philosophy in Physics program requires 90 credit hours at the graduate level, including a minimum of 24 credit hours of dissertation research. A maximum of 36 credits may be transferred from a completed graduate program with the approval of the Graduate Committee.

Graduate Admission Requirements

For admission to the graduate programs, a Bachelor's degree in Physics is required with a minimum undergraduate GPA of 3.0. The GRE is required. The minimum acceptable score is 1120 points for verbal and quantitative combined. The GRE advanced is recommended. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Required Courses

1. All Required Courses for the Master of Science in Physics program listed above.
2. Four additional graduate level (5000 or higher) courses.

All doctoral candidates must take a Ph.D. comprehensive exam. This exam is designed to test general knowledge of physics at the advanced undergraduate and first-year graduate level and must be passed not later than the beginning of the third year enrolled in the program. Within two years of entering the program, students must submit to the Graduate Committee their choices of research and advisor. Course work and research programs shall be planned with the advice and approval of the advisor. After passing the comprehensive exam and prior to or during the first semester of the fourth year enrolled in the program, a student must also take a candidacy exam which tests the ability to conduct research in a particular field, as well as the ability to present the results of that research in an organized and coherent manner.

Course Descriptions

Definition of Prefixes

AST-Astronomy; PHS-Physics/Specialized; PHY-Physics;
 PHZ-Physics; PSC-Physical Sciences; ENU-Nuclear
 Engineering.
 F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

AST 5215 Stellar Astrophysics (3). Topics in Stellar Astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on current stellar structure, evolution models and the underlying observational data. Prerequisites: PHY 3107, PHY 3503, PHY 4324, PHY 4222 or equivalent. (F or S)

AST 5405 Extragalactic Astrophysics (3). Topics in extragalactic astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on galactic structure and evolution, quasars and cosmology. Prerequisites: PHY 3107, PHY 3503, PHY 4324, PHY 4222 or equivalent. (For S)

AST 5507 Celestial Mechanics (3). Principles of classical Newtonian mechanics applied to the motions of planets,

satellites, and interplanetary space probes. Prerequisites: PHY 4222 or equivalent. (F or S)

PHY 5115 Mathematical Physics I (3). Methods of solution for problems in mathematical physics: Variational principles, complex variables, partial differential equations, integral equations, and transforms. Prerequisites: MAC 3313, MAP 3302. (F)

PHY 5116 Mathematical Physics II (3). Additional solution methods in mathematical physics: Perturbation methods, Laplace's and Poisson's Equations, waves, special functions, vector fields, vector waves. Prerequisite: PHY 5115. (S)

PHY 5140 Atomic Particle Interactions and Detection (3). Preparation for research utilizing particle detectors. Covers particle interactions with matter in scintillation, ionization, and semiconductor detectors for charged particles, neutrons, and photons. Prerequisites: PHY 3107 or permission of Instructor.

PHY 5141 Intermediate Modern Physics I (3). Prepares advanced undergraduate and beginning graduate student research preparation in atomic, molecular, or optical physics. Topics may be adapted to students' research interests. Prerequisite: Permission of Instructor.

PHY 5142 Intermediate Modern Physics II (3). Continuation of advanced undergraduate and beginning graduate student research preparation in atomic, molecular, optical or nuclear physics. Topics may be adapted to students' research interests. Prerequisite: Intermediate Modern Physics I.

PHY 5156C Physics Modeling II (4). Expanding the modeling guided-inquiry approach in Physics Modeling I to topics beyond mechanics such as electricity, magnetism, light, or modern physics. May be repeated for credit. Prerequisites: PHZ 5155C and permission of the instructor.

PHY 5235 Nonlinear Dynamics and Chaos (3). Introduction to the universal behavior of classical systems described by nonlinear equations. Prerequisites: PHY 4222, MAA 4211. (F or S)

PHY 5240 Advanced Classical Mechanics (3). Advanced formulations of the equations of motion and their applications: the central field problem, rigid body dynamics, oscillations and continuous systems. Prerequisite: PHY 4222. (F)

PHY 5346 Advanced Electromagnetic Theory I (3). Advanced treatment of classical electromagnetism: Electrostatics, Green's function, Laplace's equation, multipole expansion, magnetostatics, Maxwell's equations, waves. Prerequisite: PHY 4324. (F)

PHY 5347 Advanced Electromagnetic Theory II (3). Additional topics in classical electromagnetism: Wave guides, radiating and diffracting systems, Kirchoff's integral for diffraction, covariant formulation of field equations. Prerequisite: PHY 5346. (S)

PHY 5446 Laser Physics (3). Principles of lasers and laser applications, including atom-field interactions, stimulated emission and dipole oscillators, optical resonators and electromagnetic modes, semi-classical

laser theory, and specific laser systems. Prerequisite: PHY 4605. (F or S)

PHY 5466 The Physics of Music (3). Provides music technology majors a physical understanding of sound, sound generation and reproduction. Concentrates mainly on physical principles and less on calculation. Prerequisite: Permission of Instructor.

PHY 5667 Nonperturbative Quantum Field Theory (3). Euclidean QFT, renormalization group, local gauge symmetry, lattice regularization, Wilson action, fermion fields, expansion schemes, numerical algorithms, hadron properties, recent developments. Prerequisite: PHY 4605.

PHY 5930 Seminar in Physics (1-3). A series of specialized lectures/seminars on selected topics in Physics/Astro-Physics. Prerequisite: Permission of the department.

PHY 5936 Special Topics Research (1-10). Participation in an original investigation in theoretical or experimental physics/astro-physics under direct faculty supervision. Prerequisite: Permission of the instructor.

PHY 5937, PHY 5938 Seminar in Special Topics (3). Seminar work under the supervision of a faculty member on subject material of mutual interest.

PHY 5940 Physics Graduate Teaching Workshop (1). The teaching of physics laboratories. Includes practice of lab experiments, use and adjustment of lab equipment and explanation of departmental grading policy. Supplemented by outside lectures on university policies. (F)

PHY 6524 Statistical Physics (3). Fundamental principles of statistical mechanics: fluctuations, noise and irreversible thermodynamics; kinetic methods and transport theory. Prerequisites: PHY 3503 and PHY 4222. (S)

PHY 6645 Advanced Quantum Mechanics I (3). Advanced topics in quantum mechanics: Quantized systems, relativistic quantum mechanics, potential scattering. Prerequisite: PHY 4605. (F)

PHY 6646 Advanced Quantum Mechanics II (3). Additional topics in advanced quantum mechanics: Collision theory, symmetry transformations, conservation laws, group theory. Prerequisite: PHY 6645. (S)

PHY 6651 Quantum Scattering Theory I (3). The investigation of atomic and electronic scattering processes: Potential scattering, long range potentials, electron-atom collisions. Prerequisite: PHY 6645.

PHY 6652 Quantum Scattering Theory II (3). The mathematical investigation of scattering processes: Auto-ionization, fast vs. slow collisions, Regge poles, S and T matrices. Prerequisite: PHY 6651.

PHY 6668 Relativistic Quantum Field Theory I (3). Introduction to relativistic quantum fields: General formalism, Klein-Gordon field, Dirac field, vector fields, interacting fields, CPT theorem, reduction formulae, gauge theory. Prerequisite: PHY 6646.

PHY 6669 Relativistic Quantum Field II (3). Additional topics in relativistic quantum fields: perturbation theory, U matrix, Wick's theorem, dispersion relations, renormalization, Ward identity, renormalization group, path integral formalism. Prerequisite: PHY 6668.

PHY 6675 Quantum Theory of Many Particle Systems I (3). An introduction to the physics of many particle systems: Second quantization, Fock spaces, Boson and Fermion symmetry, Gell-Mann-Low theorem, diagrammatic expansions, Goldstone theorem. Prerequisite: PHY 6646.

PHY 6676 Quantum Theory of Many Particle Systems II (3). Additional topics in the physics of many particle systems: Fermi gas, Bose condensation, Hartree-Fock approximation, random phase approximation, finite temperature formalism, hadrons. Prerequisite: PHY 6675.

PHY 6935 Graduate Research Seminar (1). Seminars presented by students, faculty, and visitors on a variety of topics of current research interest. Repeatable. Required every semester. (F and S)

PHY 6936 Graduate Research (1-10). Research at the graduate level in theoretical or experimental physics under faculty supervision, repeatable. Prerequisite: Permission from supervising faculty.

PHY 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of the department. (F,S)

PHY 6971 Master's Thesis (3). Theoretical and/or experimental research leading to thesis. Prerequisite: Permission of major professor. (F,S)

PHY 7910 Dissertation Research (1-9). Students conduct dissertation research at the doctoral level in theoretical or experimental physics under faculty supervision. Prerequisite: Permission of the instructor. (F, S)

PHY 7981 Ph.D. Dissertation (1-12). Original research work towards completion of dissertation and presentation and defense of dissertation. Prerequisite: Permission of Major Professor and Doctoral Candidacy.

PHZ 5130 Theoretical Treatment of Experimental Data (3). Statistical analysis of physical processes and statistical tests, with particular emphasis on instrumentation-related problems. Mathematical modeling and computer simulation. Prerequisites: Undergraduate statistics course, or equivalent, or permission of the instructor.

PHZ 5155C Physics Modeling I (4). An inquiry physics-teaching approach incorporating physics education research. Emphasis on basics models in mechanics, scientific discourse, and student learning assessment. May be repeated for credit. Prerequisite: Permission of the instructor.

PHZ 5156 Computational Physics I (3). Physical systems by means of computer simulation. Monte Carlo, molecular dynamics, percolation, random systems, chaos, criticality, gauge fields. Prerequisites: PHY 5115 and PHY 5116.

PHZ 5157C Computational Physics II (3). Advanced computer simulation methods of physical systems. Application in chaos, nonlinear and random systems, criticality, field theory and practices. Prerequisite: PHZ 5156. Corequisites: PHY 5115 and PHY 5116.

PHZ 5234 Atomic and Molecular Collision Phenomena (3). Investigation of atomic and molecular collision

phenomena: Kinetic theory, elastic scattering, inelastic scattering, excitation and ionization, heavy particle collisions. Prerequisites: PHY 4605 and PHY 4222. (F or S)

PHZ 5304 Advanced Nuclear Physics (3). The fundamental properties of nuclei, nuclear forces, nuclear models, radioactivity, weak processes, and nuclear reactions. Prerequisite: PHY 4604. Corequisite: PHY 4605. (F or S)

PHZ 5370 Nanoscience (3). Overview of the nanoscience with emphasis on physical properties, such as electrical, magnetic and optical properties, of nanomaterials. Prerequisites: PHY 3106, PHY 3107.

PHZ 5405 Solid State Physics (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, crystalline surfaces, and amorphous materials. Prerequisites: PHY 3107 or CHM 3411.

PHZ 5505 Low Energy Plasma Physics (3). The investigation of the kinetics of rarefied gases and thermal plasmas: Phase space, random currents, orbit theory, plasma sheaths, radiation, the pinch effect. Prerequisites: PHY 3503, PHY 4324, and PHY 4222.

PHZ 5506 Plasma Physics (3). An introduction to plasma fundamentals, the Boltzmann equation, the hydrodynamic equations, orbit theory, the interaction of electromagnetic waves with plasmas, the pinch effect and instabilities. Prerequisite: PHY 3049. (F or S)

PHZ 5606 Special Relativity (3). A detailed study of special relativity: Lorentz transformations, relativistic electrodynamics. Prerequisite: PHY 3107.

PHZ 5607 General Relativity (3). General relativity using differential geometry and tensor analysis. Topics include Einstein's field equations and their solutions, applications and observational tests. Black Holes and cosmology are also discussed. Prerequisites: PHY 4222 and PHY 4605.

PHZ 6255 Molecular Biophysics (3). The use of theoretical physics techniques to investigate biological systems: Protein structure and dynamics, electron tunneling, nuclear tunneling, hemoglobin, photosynthesis, vision. Prerequisite: PHY 4605. (F or S)

PHZ 6326 Low Energy Nuclear Physics I (3). Introduction to the physics of nuclei and nuclear processes: Nuclear forces, scattering processes and nuclear models. Prerequisite: PHY 4605.

PHZ 6327 Low Energy Nuclear Physics II (3). Additional topics in nuclear physics: The shell and collective models, nuclear reactions and applications, scattering theory, entrance channel phenomena, rearrangement collision and breakup reactions. Prerequisite: PHZ 6326.

PHZ 6354 Introduction to Particle Physics (3). An introduction to modern particle theory: Elementary field theory, symmetries, quantum electrodynamics, quark-parton model, quantum chromodynamics, Weinberg-Salam model. Prerequisite: PHY 6646.

PHZ 6355 High Energy Hadronic Physics (3). Physics of quark-gluon structure of strongly interacting matter. Introduces the basic methods of high energy hadronic and nuclear physics, the quark model of hadrons, and the

partonic model of deep-inelastic scattering. Prerequisite: Graduate standing.

PHZ 6359 Quantum Gauge Field Theories (3). Basics in field quantization, nonabelian symmetries, the standard $SU(3) \times SU(2) \times U(1)$ model, non-perturbative features, lattice regularization and numerical simulation. Prerequisites: PHY 4605, PHY 5346. (F or S)

PHZ 6396 Advanced Nuclear and Particle Physics (3). Nuclear and particle physics, nuclear forces, reactions and kinematics, deep inelastic scattering, partons QCD, nuclear and particle astrophysics, quark gluon plasma. Prerequisite: PHY 4604.

PHZ 6426 Advanced Solid State Physics (3). Electronic structures of solids and surfaces, electron-electron interaction, superconductivity, magnetism in solids, amorphous systems, glasses, polymers, percolation, localization, phase transition, fractals. Prerequisites: PHY 4324 and PHY 4605. (F or S)

PHZ 6437C Surface Physics (3). An introduction to theoretical and experimental techniques AES (Auger Electron Spectroscopy), LEED (Low Energy Electron Diffraction), XPS (X-ray Photoelectron Spectroscopy), AFM (Atomic Force Microscopy) and STM (Scanning Tunneling Microscopy). Prerequisites: PHZ 5405 or permission of the instructor.

Political Science

Richard Olson, *Professor and Chairperson*

Andrian Ang, *Assistant Professor*

Astrid Arrarás, *Lecturer*

Ronald Cox, *Associate Professor*

Clement Fatovic, *Assistant Professor*

Eduardo Gamarra, *Professor*

Kevin Hill, *Associate Professor and Undergraduate Advisor*

Antonio Jorge, *Professor Emeritus*

Tatiana Kostadinova, *Assistant Professor and Graduate Director*

Barry Levitt, *Assistant Professor*

Russell Lucas, *Assistant Professor*

Dario Moreno, *Associate Professor and Director, Metropolitan Center*

Brian Nelson, *Associate Professor Emeritus*

Sarah Poggione, *Assistant Professor*

Nicol Rae, *Professor and Senior Associate Dean, College of Arts and Sciences*

Mark Rosenberg, *Professor and Chancellor, State University System of Florida*

Rebecca Salokar, *Associate Professor*

John Stack, *Professor of Political Science and of Law and Director, Gordon Institute for Public Policy and Citizenship Studies*

Judith H. Stiehm, *Professor*

Christopher Warren, *Associate Professor*

The Master of Arts and the Doctor of Philosophy degrees in Political Science at Florida International University are designed to provide students with a comprehensive knowledge of the discipline. The department's graduate program builds on faculty strengths and distinguishes itself by stressing a comparative approach to the study of politics. The program is designed to equip its graduates with a solid foundation in the basic theories and methods of Political Science, in conjunction with an in-depth education in selected traditional subfields. The program has a particular focus on Comparative Politics and American Politics.

Admission Procedures

Applicants seeking admission for the Fall semester should have application materials submitted by March 15th. Incomplete applications cannot be considered by the Graduate Admissions Committee. Admission decisions will be announced no later than April 15th. Applicants must apply online using the website of the FIU University Graduate School. In addition, the following items should be submitted to the FIU University Graduate School as well:

1. Official transcripts of all university-level work, including undergraduate or professional school courses.
2. An official report of Graduate Record Examination (GRE) scores.
3. For International graduate student applicants whose native language is not English, a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS).

It is advised to send *copies* of the above items to the Political Science Department's Graduate Admissions Committee at the following address: Department of Political Science, DM 480, University Park Campus, Miami, Florida 33199. Telephone: (305) 348-2226; Fax: (305) 348-3765. In addition, applicants must submit the

following directly to the Political Science Department's Graduate Admissions Committee:

1. Two letters of reference from former instructors who are able to evaluate the applicant's potential for graduate study. Applicants should ensure that each letter is signed by the author along the sealed flap of the envelope.

2. A personal statement of intent, including a discussion of education and career objectives and the specific relationship of a Master's or Doctoral degree in Political Science to the achievement of those objectives. The personal statement should not exceed three typewritten, double-spaced pages.

3. For PhD applicants only, a copy of the Master's thesis or similar major written work.

Master of Arts in Political Science

Admission Requirements

Admission to the Master's program is competitive. Meeting the minimum requirements does not guarantee acceptance.

The minimum requirements for admission to the M.A. program include:

1. A baccalaureate degree from an accredited college or university.

2. A minimum 3.2 grade point average (on a 4.0 scale) during the last two years of a student's undergraduate program (students with graduate or professional course work will be evaluated individually).

3. A minimum combined score of 1000 on the verbal and quantitative sections of the GRE.

4. Graduates of non-U.S. institutions must be academically eligible for further study in the country where the degree was earned.

5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Degree Requirements

The course of study for the M.A. in Political Science requires 30 credit hours. A final research project and research seminar are required components:

Required Courses (9 credits)

POS 5716	Foundations of Political Science	3
POS 5706	Research Methodology	3
POS 6976	Research Seminar	3

Core Courses (9 credits)

Each student is required to take three of the following four core courses:

POS 5045	Seminar in American Politics	3
CPO 5091	Seminar in Comparative Politics	3
INR 5007	Seminar in International Politics	3
POT 5007	Seminar in Political Theory	3

Electives (12 credits)

Students are required to take four elective courses. A student may take a maximum of six credit hours in a cognate field or in an approved cognate program.

Combined BA/MA Degree Program in Political Science (the “4+1” Program)

Admission Requirements

1. Political Science majors with senior status (i.e. with 90 credit hours) must apply for the master's degree by the end of the first semester of their senior year.
2. Students must have been admitted to the College of Arts and Sciences and must have passed or exempted from the CLAST exam.
3. A 3.5 GPA overall in college work, and a 3.75 GPA in Political Science courses taken at FIU, are required.
4. Three letters of recommendation, at least two of which must be from FIU Political Science faculty, are required.
5. Students must meet admissions requirements for the MA in Political Science.
6. Finally, a favorable admittance decision into the 4+1 program by the Political Science Department graduate committee is required.
7. Students will be awarded the B.A. degree upon completion of the B.A. requirements, prior to completing the requirements for the M.A. degree.

Political Science Graduate/Undergraduate Electives Requirement (5 courses/15 credits)

Students in the 4+1 program will take five 3 credit Political Science courses to satisfy this requirement. **Three of these courses (9 credit hours) must be 5000-level graduate courses.** The other two courses must be 3000 or 4000-level Political Science classes. Students must be advised by the Graduate Program Director before enrolling in these 5000-level courses.

The 9 hours of graduate credit taken to satisfy this undergraduate major requirement will also count as 9 credit hours toward the 30 hours of graduate courses required for the M.A. degree.

M.A. Courses

A total of 30 hours of graduate-level courses is required for the successful completion of the M.A. degree. Nine of these 30 hours will have been completed at the undergraduate level by students in the 4+1 program.

Required Core Graduate Courses

POS 5706	Research Methodology
POS 5716	Foundations of Political Science
POS 6976	Research Seminar (to be taken during last term)

Secondary Core Graduate Courses – Choose three of the following:

CPO 5091	Seminar in Comparative Politics
INR 5007	Seminar in International Politics
POS 5045	Seminar in American Politics
POT 5007	Seminar in Political Theory

Electives – Four courses (12 credit hours)

Any 5000 or 6000 level Political Science courses. Two courses (6 credit hours) may be taken from outside the Department, with prior approval from the Graduate Director.

Research Project

A final research project must be completed in POS 6976 under the supervision of a Political Science faculty. MA candidates are required to formally present the results of

their research to faculty and peers at the end of the semester.

Doctor of Philosophy in Political Science

Admission Requirements

Admission to the Ph.D. program is competitive. Meeting minimum requirements does not guarantee acceptance.

The minimum requirements for admission to the Ph.D. program include:

1. A baccalaureate degree from an accredited college or university;
2. An undergraduate GPA of 3.2 and/or a graduate GPA of 3.25;
3. A minimum combined score of 1120 on the verbal and quantitative sections of the GRE.
4. Graduates of non-U.S. institutions must be academically eligible for further study in the country where the degree was earned.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Degree Requirements

The Ph.D. program requires a minimum 76 credit hours beyond the Bachelor's degree.

The Doctor of Philosophy in Political Science is conferred based on satisfactory completion of required course work, a demonstrated mastery of a broad field of knowledge, and successful completion and defense of the dissertation. The degree provides graduates with a solid foundation in the basic theories and methodologies of political science in conjunction with specialization in traditional subfields. Students will, in consultation with their faculty advisors, determine the contents of their course work. Students will specialize in two examination fields drawn from among the four of the principal subfields of Political Science: American Politics, Comparative Politics, International Politics, and Political Theory. Students are also required to take additional coursework in a third, nonexamined field of specialization. The third specialization field will be satisfied by a minimum of 9 credit hours in a regionally or topically defined area.

Students' proposed programs must be approved by their advisors and the Graduate Studies Committee.

Required Courses (10 credits)

POS 5702	Teaching Political Science	1
POS 5706	Research Methodology	3
POS 5716	Foundations of Political Science	3
POS 6918	Seminar in Political Science Methodology	3

Common Core Courses (12 credits)

CPO 5091	Seminar in Comparative Politics	3
INR 5007	Seminar in International Politics	3
POS 5045	Seminar in American Politics	3
POT 5007	Seminar in Political Theory	3

Two Examination Fields (minimum 12 credits)

Third Specialization (minimum 9 credits)

Approved Electives (minimum 9 credits)

Language Requirement

The Political Science Ph.D. Program requires competency in one foreign language or demonstrated competency in computer and methodological techniques when considered more appropriate. Language competency must be demonstrated prior to taking the comprehensive examinations.

Comprehensive Examination

After satisfactory completion of course work, students will take comprehensive exams in their two chosen subfields before being admitted to candidacy and defending a dissertation proposal. The comprehensive exams will cover core courses and broad knowledge of the two examination fields. They will be written and oral.

Comprehensive examinations are given twice yearly, in mid-September and mid-January.

Dissertation (minimum 24 credits)

After passing the comprehensive exams, students are admitted to candidacy and enroll for dissertation credits under the supervision of their dissertation advisors. Candidates will prepare and defend a dissertation proposal. Upon completion of the work, a public defense of the dissertation will be scheduled in accordance with university policy.

Financial Aid

The program has a limited number of graduate assistantships available for qualified students. Assistantships are awarded on a competitive basis only to full-time students. Students applying for full-time status are considered automatically for these awards. Assistantships are renewable each year for up to four years based on satisfactory progress and performance.

Course Descriptions

Definition of Prefixes

CPO-Comparative Politics; INR-International Relations; POS-Political Science; POT-Political Theory; PUP-Public Policy.

CPO 5036 Politics of Development (3). This course examines divergent explanations for development and underdevelopment. Of central importance are the concepts and theories that emphasize the political dimensions of development processes of development, and actors in the development process.

CPO 5091 Seminar in Comparative Politics (3). A foundation in the development of the field of comparative politics and in the major schools of thought that have molded perspectives on comparative political analysis.

CPO 5325 Politics of the Caribbean (3). Examines the structural and institutional aspects of the politics of the Caribbean. Prerequisite: Graduate standing.

CPO 5934 Topics in Comparative Politics (3). A rigorous examination of a topic in comparative politics. Subject matter varies according to instructor. Topic will be announced in advance.

CPO 5936 Seminar in Comparative Political Parties (3). Students read and discuss major works on parties by conservative, liberal, and Marxist authors.

CPO 6062 Seminar in Comparative Judicial Politics (3). An examination of judicial structures, legal traditions, judicial behavior and judicial power cross culturally.

CPO 6066 Comparative Constitutional Law (3). An examination of constitutionalism in both established and developing democracies. Particular emphasis on the role of courts, judicial review and judicial remedies using doctrinal, contextual and theoretical analysis.

CPO 6084 War, Peace and the Military (3). Examines theories of the relationship between societies, governments and their militaries. Emphasis on relationship between militaries and a nation's experience with peace and participation in war. Prerequisite: Graduate standing.

CPO 6092 Seminar in Comparative Political Culture (3). Examines culturalist theories in comparative politics, including postmaterialism, social capital, and civic culture. Students test hypothesis using survey data from prominent cross-national datasets. Prerequisites: POS 5706 or equivalent.

CPO 6105 Politics of the European Union (3). Examines the development and operation of the world's most successful experiment in regional cooperation, the European Union (EU), including political economy, institutions, and policy-making. Prerequisite: Graduate Standing.

CPO 6106 Seminar on European Politics (3). Advanced discussion of major themes in European politics. Topics include corporatism, post-materialism, democratization, and European integration.

CPO 6206 Seminar in African Politics (3). Studies the crisis of African development. Topics include colonialism, internal cleavages, and impact of the global economy.

CPO 6307 Seminar on South American Politics (3). Explores the realities and myths of the democratization experience of South America.

CPO 6316 Seminar in Latin American Democratic Institutions (3). Reviews the role of institutional design in promoting accountability in Latin American democracy, including presidentialism, party systems, legislatures, electoral laws, and federalism. Prerequisite: Graduate standing.

CPO 6350 Seminar in Brazilian Politics (3). The political development of Brazil, focusing on alternation between authoritarianism and democracy. Emphasis on clientelism, patrimonialism, civil-military relations, and political institutions.

CPO 6376 Seminar in Central American Politics (3). Central America's socio-political evolution. Attention is given to both the national and international politics of the region.

CPO 6407 Seminar in Politics of the Middle East (3). In depth analysis of comparative theoretical perspectives of political processes in the Middle East.

CPO 6771 Politics of Disaster (3). Examines disaster and other extreme events as political system shocks. Analyzes disasters as crises of values, legitimacy, and agenda control. Evaluates policy alternatives in prevention, mitigation, and response. Prerequisite: Graduate Standing.

INR 5007 Seminar in International Politics (3). An advanced graduate course designed to give students a specialized knowledge of the classics in international politics. The course traces the development of international politics from Thucydides to the present.

INR 5036 Politics of Globalization (3). Intensive examination of state and global institutions that have shaped the process of economic globalization. Topics include impact on sovereignty, human rights, labor and agenda-setting of large and small nation-states.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5105 American Foreign Policy (3). Compares different perspectives in foreign policy analysis. Provides a comprehensive understanding of major issues in U.S. policy.

INR 5934 Topics in International Politics (3). A rigorous examination of a topic in international politics. Subject matter varies according to instructor. Topic to be announced in advance.

INR 6080 Seminar on Non-State Actors (3). Explores the nature of non-state actors in international politics, including cities, interest groups, multi-nationals, and individuals.

INR 6705 Seminar in International Political Economy (3). Theories of economic cooperation and conflict among nation-states. Liberal, economic nationalists and Marxist theoretical paradigms are explored in an examination of the internationalization of capital, trade and investment and the role of the State in the global economy.

INR 6936 Seminar in Inter-American Politics (3). Focus on U.S.-Latin American relations. Attempts to link the theoretical literature on U.S. foreign policy with empirical developments.

POS 5045 Seminar in American Politics (3). The advanced study of U.S. politics. Students read and discuss the major works and theories concerning American politics and government.

POS 5146 Seminar in Urban Politics (3). Examination of processes by which urban areas are governed. Emphasis is on conflicts over structures, power, policy and the politics of ethnicity and class.

POS 5158 Topics in Politics (3). Subject matter varies according to instructor.

POS 5208 Seminar in Political Behavior (3). Analyzes the literature in political behavior. Special emphasis is on voting, socialization, attitudes, partisanship, campaigning, the media, and political participation in the developed democracies. Prerequisite: POS 5706.

POS 5447 Seminar in U.S. Political Parties (3). Students read and discuss the major works and theories on U.S. political parties.

POS 5638 Topics in Public Law (3). A rigorous examination of a topic in public law. Subject matter varies according to instructor. Topic will be announced in advance.

POS 5702 Teaching Political Science (1). Introduces graduate students to the pedagogical and practical aspects of teaching political science. Topics will include selecting books, writing a syllabus, lecturing, running discussion groups, and testing and grading. Covers professional ethics, and student rights and responsibilities.

POS 5706 Research Methodology (3). This course is an introduction to the principal concepts and techniques of quantitative and non-quantitative methodology in the social sciences. It is designed to familiarize the student with the language and format of quantitative and non-quantitative applications in order to permit students to deal effectively with the literature of their field.

POS 5716 Foundations of Political Science (3). Prepares students for the advanced study of politics. Areas of study include history of political science as a discipline, comparison of classical and modern sciences of politics and realpolitik, epistemological foundations.

POS 5785 Writing Professionally in Political Science (3). Focus on inductive research process. Refines technical skills for effective written communication. Best practice examples for preparing briefing papers, articles, books, and grant applications.

POS 5909 Independent Study (1-6). Designed for advanced students who wish to pursue specialized topics in political science. Arrangements must be made with instructor during prior semester.

POS 5932 Topics in Urban Politics (VAR). An extensive examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is on the ways in which urban problems are identified and proposed solutions formulated, legitimized, and administered by urban policy-making processes. Includes a discussion of urban political culture.

POS 6286 Judicial Research (3). Examination of the methodological approaches used to study courts in a political context. Special attention to seminal works that focus on individual, small group and institutional behavior, and extra-legal influences.

POS 6415 Seminar on the U.S. Presidency (3). Examines the most important works on the U.S. Presidency, and the evolution of the office since 1789.

POS 6427 Seminar on the U.S. Congress (3). Discussion of the scholarly literature on Congress. Students analyze trends in congressional power and possible reforms.

POS 6612 Seminar on U.S. Supreme Court (3). Seminar covers literature, both current and classic, on U.S. Supreme Court. Topics covered typically include the major paradigms, appointment, access, agenda setting, decision making and impact.

POS 6639 Seminar in Public Law (VAR). Graduate seminar on special topic in public law. Topic to be announced in advance.

POS 6725 Formal Political Modeling (3). Introduces students to the foundations of public choice. Particular topics may include decision theory, social choice, spatial voting models, and game theory, among others.

POS 6918 Seminar in Political Science Research Methods (3). Examines the methods used to design, execute, and critique empirical research in political science, addressing a variety of methodological issues. Prerequisites: POS 5706 and POS 5716.

POS 6937 Seminar in Politics (VAR). Subject matter varies according to instructor.

POS 6971 Thesis (1-6). Requires students to enroll for thesis or dissertation research for at least one credit hour every semester in which they are engaged in such research. Prerequisite: All other course work for the Master's.

POS 6976 Research Seminar (3). Required course for all MA candidates during completion of their major research project. Also required for second-year Ph.D. students. The course guides student research while in progress. Prerequisite: POS 5706.

POS 7910 Pre-Dissertation Research (1-9). During the term in which students take Ph.D. comprehensive exams, this course enables them to concentrate on completion of their dissertation prospectus. Prerequisite: Completion of all other Ph.D. coursework.

POS 7980 Ph.D. Dissertation (1-12). Supervised research and writing of an original research project. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

POT 5007 Seminar in Political Theory (3). An examination of writings from a diverse list of some of the major political theorists in the Western tradition from antiquity to the present.

POT 5307 Feminist Political Theory (3). Examines feminist political theory in the second half of the twentieth century with the focus on the work of U.S. scholars.

POT 5934 Topics in Political Theory (3). An intensive examination of selected topics dealing with political theory. Subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of particular interest to him or her.

POT 6015 Seminar in Classical Political Thought (3). Examination of key elements of classical political thought from the Hellenic to early Christian periods.

POT 6056 Seminar in Modern Political Thought (3). Examines important works and theories of political thought from the renaissance to the early 19th century.

POT 6067 Seminar in Contemporary Political Thought (3). Examines political theories of the 19th and 20th centuries. Special emphasis on the tension between modern and post-modern theory.

POT 6208 Seminar in American Political Thought (3). Students read and discuss classic and contemporary interpretations of U.S. political thought, and apply those ideas to modern U.S. politics.

POT 6315 Democratic Theory (3). Examines various theories of democracy in modern and contemporary political thought, including liberal, civic republican, deliberative, and cosmopolitan conceptions of democracy. Prerequisite: Graduate standing.

POT 6416 Seminar in Marxism (3). Analysis of the evolution of Marxism from Marx to the present. Particular attention is given to contemporary Marxist debates.

POT 6603 Political Theory of the Modern State (3). Analyzes evolution and theories of the modern state from the high middle ages to the present. Pre-state formations, classical states, and social science theories of the state are also discussed.

PUP 5934 Topics in Public Policy (1-6). A rigorous examination of a topic in public policy. Subject matter varies according to instructor. Topic will be announced in advance.

PUP 6007 Seminar in Public Policy (1-6). Graduate seminar on special topic dealing with public policy analysis. Subject matter varies according to instructor. Topic to be announced in advance.

Psychology

Mary Levitt, *Professor and Chairperson*

Lisa Arango, *Lecturer*

Lorraine Bahrick, *Professor*

Steven Charman, *Assistant Professor*

Joan Erber, *Professor*

Gordon Finley, *Professor*

Ronald Fisher, *Professor*

Leslie Frazier, *Associate Professor and Director
Undergraduate Studies*

Arlen Garcia, *Visiting Lecturer*

Jacob Gewirtz, *Professor*

Nathan Hiller, *Assistant Professor*

James Jaccard, *Professor*

William Kurtines, *Professor*

Robert Lickliter, *Professor and Director of Graduate
Studies*

Gary Moran, *Professor*

Emeritus Kevin O'Neil, *Assistant Professor*

Vicky Pace, *Visiting Assistant Professor*

Janat Parker, *Professor*

Suzanna Rose, *Professor*

Bennett Schwartz, *Professor*

Nadja Schreiber, *Assistant Professor*

Wendy Silverman, *Professor*

Maria Shpurik, *Lecturer*

Dionne Stephens, *Associate Professor*

Paige Telan, *Visiting Lecturer*

Jonathan Tubman, *Professor*

Chockalingam Viswesvaran, *Professor*

Ryan Winter, *Assistant Professor*

Master of Science in Psychology

The Master of Science in Psychology Program at the University is designed to train practitioners and researchers who can function in a variety of applied settings. The core curriculum and admission prerequisites are intended to provide students with a base of knowledge in psychology. A distinctive feature of the program is its emphasis on a close working relationship between student and faculty. Under faculty supervision, students are encouraged to develop individually tailored programs of study that reflect both student interests and program strengths.

The curriculum consists of 36 semester hours of graduate study that focus specifically on training the student to perform the skills mentioned above. Students are expected to select electives, project/thesis topics, and supervised field experiences that meet not only the degree requirements, but also their academic interest and particular profession objectives. Six of the 36 semester credit hours consist of Master's thesis credits.

Students applying for the Masters of Science in Psychology can choose to specialize in different areas including counseling psychology, life-span developmental, behavior analysis, industrial-organizational psychology, and legal psychology. Psychology also offers a dual MS/JD degree. Prospective students are encouraged to contact the department for additional information.

The area courses in Behavior Analysis allow students to meet university requirements plus the course and practice requirements for the National Board Certification in Behavior Analysis (BCABA, BCBA).

The area courses in Counseling Psychology allow students to meet university requirements plus the requirements for the State of Florida Mental Health Counseling license.

Degree Requirements

Students are required to take 36 semester hours/credits beyond the Bachelor's degree.

Required Courses

- (a) Two Statistics/Methodology Courses (6 credits minimum)
- (b) Six graduate Proseminars/Seminars in specialty area (18 credits minimum)
- (c) Supervised Research, Advanced graduate courses, or Practicum (6 credits minimum)
- (d) Master's Thesis (6 credits) or Master's Non-thesis option (6 credits)

Doctor of Philosophy in Psychology

The doctorate program in psychology has a three-fold focus: (1) life-span development (2) legal psychology, and (3) I/O psychology. The program emphasizes normal development as well as cross-cultural and urban perspectives on the life span and legal and industrial/organizational psychology. The emphasis is on academic quality and the curriculum is designed to foster a commitment both to basic research and to application as an integral part of the individual student's specialty area development.

Students are expected to master a series of core-course requirements designed to facilitate a thorough grounding in theory, methodology, and content both in basic and applied research. In addition, a number of seminars reflecting specialized foci are offered. Students are also required to pursue specific areas of interest through independent study with individual faculty members and through apprenticeship with a primary advisor for the purpose of acquiring direct research experience.

Degree Requirements

The Ph.D. in Psychology is conferred on individuals in recognition of their demonstrated ability to master a specific field of knowledge and to conduct significant independent, original research. A minimum of 90 semester credits of graduate work beyond the baccalaureate is required, including a dissertation based upon the student's original research. A maximum of 36 credits may be transferred from another graduate program, including 6 thesis credits, with the approval of the Program Committee.

Required Courses

- (a) Three graduate Statistics/Methodology courses (9 credits minimum)
- (b) Seven Graduate Proseminars/Seminars in specialty area (21 credits minimum)
- (c) Supervised Research, Practicum, Teaching (12 credits minimum)
- (d) Master's Thesis (6 credits)
- (e) Comprehensive Examination:
Part 1: Specialty Exam/Qualifying Paper
Part 2: Theory/Method Exam
- (f) Doctoral Dissertation (24 credits minimum)
- (g) Electives (up to 18 credits)

Graduation Requirements

A grade of "B" or higher must be obtained in all courses with a cumulative average of 3.0 or higher in the 90 credits; the program requirements must be completed, and a dissertation must be completed and accepted by the University.

Graduate Admission Requirements

The following are the University's Graduate Admission Requirements:

1. A 3.0 or higher GPA during the last two years as an upper division student for both the Master's and Doctoral programs.
2. A total score (quantitative plus verbal) of 1,000 or higher on the GRE for the Master's degree. A 3.5 or higher GPA and a GRE verbal and quantitative of 1120 or higher are required for the Ph.D. degree. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 92 on the iBT TOEFL (equivalent to 580 in the TOEFL) is required.

All applications are reviewed by the Program Area Admission Committee, which makes the final admissions decisions. Admission to the program is competitive.

Graduate Admissions Procedures

Applicants must submit the following to the Graduate Studies Admission Committee, Department of Psychology, Florida International University, Miami, Florida 33199:

1. A brief essay stating the reasons for the interest in the program and career goals.
2. Three letters of recommendation, preferably from previous instructors and/or persons familiar with applicant's academic background.

Applicants to the program who are not psychology majors may be accepted conditionally until they meet the category requirements, listed below, early in their graduate career. A maximum of nine semester hours credit earned in the non-degree seeking student category exclusive of prerequisite undergraduate courses may be applied to graduate degree requirements. The undergraduate course requirements are designed to make certain that students accepted into the graduate program have a broad base of dependable psychological knowledge and acquaintance with the basic methodologies upon which the discipline is founded.

Category A. Satisfactory completion of one psychology laboratory or research methods course.

Category B. Satisfactory completion of introductory upper division statistics.

Deadline for review of completed applications is December 15 for fall admission.

Juris Doctor/Master of Science in Psychology Joint Degree Program

Under the joint degree program, a student can obtain both degrees in less time than it would take to obtain each degree if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

1. Candidates for the program must meet the entrance requirements for and be accepted by both Colleges. Both Colleges must be informed by the student at

the time of application to the second program that the student intends to pursue the joint degree.

2. The joint degree program is not open to students who have already earned one degree.
3. For law students, enrollment in the M.S. program is required no later than the completion of 63 credit hours in the J.D. program. For M.S. students, enrollment in the J.D. program is required no later than the third semester after beginning the M.S. program. For purposes of this paragraph, a summer session is counted as half a semester.
4. A student must satisfy the curriculum requirements for each degree before either degree is awarded. The College of Arts and Sciences will allow 9 credit hours toward the M.S. degree for successful completion of 9 credit hours of upper level law school electives from a list of courses approved by the Chair of the Department of Psychology. These 9 credit hours of law classes will be in lieu of 9 hours of courses required for the M.S. degree with the specialization in Legal Psychology as approved for each student by the Legal Psychology faculty committee, but not to include the required statistics classes of Proseminars. If the student is pursuing a non-thesis M.S. with the specialization in Legal Psychology, 6 of the 9 credit hours of law classes will be in lieu of the six credit hours normally allotted to the thesis. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the J.D. degree for courses taken in the M.S. curriculum upon completion of the M.S. degree curriculum with a grade point average of 3.0 or higher.
5. A student enrolled in the joint degree program may begin the student's studies in either College, but full-time law students must take the first two semesters of law study consecutively and part-time students must take the first three semesters of law study consecutively. Students admitted to one College but electing to begin study in the other College under the joint degree program may enter the second College thereafter without once again qualifying for admission so long as they have notified the second College before the end of the first week of the first semester in the second College and are in good academic standing when studies commence in the second College.
6. A student enrolled in the joint degree program will not receive either degree until the student has satisfied all of the requirements for both degrees, or until the student has satisfied the requirements of one of the degrees as if the student had not been a joint degree candidate.
7. Students in the joint degree program will be eligible for the graduate teaching assistantships and research assistantships in the College of Arts and Sciences on the same basis as other M.S. students, subject to the guidelines and restrictions set by the College of Arts and Sciences.

Non-Thesis Track with a Specialization in Legal Psychology

The new non-thesis track culminating in the award of a Master of Science in Psychology, with a specialization in Legal Psychology, from the College of Arts and Sciences

complements the joint degree program that awards a Master of Science from the College of Arts and Sciences and a Juris Doctor degree awarded by the College of Law. Essential criteria relating to this non-thesis option are as follows:

1. The non-thesis track is available only to graduate students who are admitted to the joint J.D./M.S. program. Admission requirements to that program are outlined above. Students entering the J.D./M.S. program will be placed on the non-thesis track.
2. Students on the non-thesis track may change to the thesis track with approval from the Director of the Legal Psychology Program and the Chair of the Psychology Department.
3. Except for the thesis requirement, the requirements for the M.S. degree, as specified by the Legal Psychology Program and the Psychology Department, apply to all students in the non-thesis track. As currently outlined, students must complete 9 hours of statistics classes, 12 hours of core Legal Psychology classes, and 9 hours of electives. Non-thesis track students must complete these requirements, plus 6 hours of additional electives. Unless otherwise specified, any changes made to the M.S. curriculum in the future will apply equally to thesis and non-thesis track students.
4. As outlined in the joint degree program proposal, 9 hours of credit toward the M.S. degree may be allowed for upper level law school electives from a list of courses approved by the Chair of the Department of Psychology. These law school classes will be in lieu of 9 hours of credit as approved for each student by the Legal Psychology Graduate Committee, but not to include the required statistics classes or Proseminars.
5. In lieu of a thesis, students must complete a comprehensive critical review paper that includes both legal and psychological analysis of a chosen topic. Students must complete this paper no later than the last semester of the student's coursework. Students must have taken all required courses by the end of the term during which they complete the critical review paper. At least two faculty members of either the Department of Psychology or the College of Law will review the paper and must agree on satisfactory completion.
6. Students on the non-thesis track are required to take at least 3 credit hours of Supervised Research (PSY 5918).

Courses

List of proposed courses in the College of Law that may be taken for credit toward the M.S. in Psychology (with specialization in Legal Psychology)

LAW 6310	Alternative Dispute Resolution	2-3
LAW 6112	Criminal Procedure	3
LAW 6114	Advanced Criminal Procedure	3
LAW 6330	Evidence	3-4
LAW 6710	Family Law	3
LAW 6381	Interviewing and Counseling	2
LAW 6363	Trial Practice	2-4
LAW 7549	Employment Discrimination	3
LAW 6714	Children and the Law	2-3
LAW 6253	Comparative Criminal Law	2-3
LAW 7308	Complex Litigation	2-3
LAW 6720	Health Law	2-3

LAW 6555	Law and Economics	2-3
LAW 6313	Negotiation and Mediation	2-3
LAW 6234	Race and the Law	2-3
LAW 6235	Women and the Law	2-3

Course Descriptions

Definition of Prefixes

CLP-Clinical Psychology; CYP-Community Psychology; DEP-Developmental Psychology; EAB-Experimental Analysis of Behavior; EDP-Educational Psychology; EXP-Experimental Psychology; INP-Industrial and Applied Psychology; LIN-Linguistics; PCO-Psychology for Counseling; PPE-Psychology of Personality; PSB-Psychobiology; PSY-Psychology; SOC-Sociology; SOP-Social Psychology; SPA-Speech Pathology and Audiology.

CLP 5166 Advanced Abnormal Psychology (3).

Advanced study of the causes, psychopathology manifestations, and social and personal consequences of behavior disturbance. Emphasis is placed on the critical examination of current research on the biological, psychological, and social aspects of these disorders. Clinical approaches to diagnosis, course, and prognosis in the contemporary mental health context (including 'practicum' assignments if feasible) are covered.

CLP 5169 Proseminar in Developmental Psychopathology (3).

A comprehensive review of topics in developmental psychopathology including history, scope, methods, individual and contextual influences, developmental course, long-term outcomes, and resilience. Prerequisites: Graduate standing or permission of the instructor.

CLP 5175 Personality Dynamics (3).

A review of different approaches to the study of personality. Prerequisites: Successful completion of a course in theories of personality, or equivalent. Permission of the instructor.

CLP 5185 Current Issues in Mental Health (3).

A critical, intensive examination of selected, important issues in mental health. Emphasis is given to the empirical study of contemporary problems related to the making of mental patients; planning, programming, and administering mental health services; political, ethical, and legal constraints on the operation of mental health facilities; interdisciplinary cooperation among helping and human service professionals; and evaluation of preventive care and treatment services. Prerequisites: Abnormal Psychology or permission of the instructor.

CLP 5931 Ethical Code in Psychological Practice (3).

Ethical principles, rules, procedures of Psychologists. Clinical application and incorporation of the principles into professional interactions. Ethical reasoning is emphasized.

CLP 6168 Psychopathology Across the Life-Span (3).

Exploration of the causes of psychopathology from a life-span developmental orientation and implications for theories of personality. Prerequisites: CLP 5166 and permission of the instructor.

CLP 6375 Clinical Psychology (3).

Introduction to the science-profession of clinical psychology, as it is applied to preventing, diagnosing and treating maladaptive or deviant human behavior and relationships. Prerequisites:

Admission to the Graduate Program in Psychology or Education and permission of the instructor.

CLP 6395 Forensic Psychology (3). This course surveys the practical and ethical issues surrounding the interface between clinical psychology and the law. Prerequisites: CLP 4144, CLP 6168, or equivalent of either.

CLP 6436 Introduction to Psychological Assessment (3). This course provides instruction in the principles and methods underlying the administration, construction and evaluation of psychological tests and measures. Prerequisite: Graduate standing.

CLP 6437 Behavioral Assessment in Childhood (3). Standardized tests and inventories for the behavior assessment of infants, children, and adolescents will be surveyed. Prerequisites: Proseminar courses and second year graduate standing.

CLP 6438 Psychological Assessment (3). Theory, research, and applications of psychological assessment in areas such as interviewing, intellectual and cognitive functioning, and personality testing. May be repeated for credit with different subject matter. Prerequisites: STA 3122 and permission of the instructor.

CLP 6498 Diagnosis and Treatment of Sexual Disorders (3). Clinical examination of sexual functioning, emphasizing disorders of gender identity, paraphilias and other dysfunctions and intimacy problems. Prerequisites: Graduate standing or permission of the instructor. Corequisites: SOP 3772 or equivalent.

CLP 6625 Clinical Supervision in Mental Health Counseling (1-20). Supervised experience in clinical supervision techniques and methods. Prerequisite: Master's degree.

CLP 6943 Advanced Clinical Practicum (1-20). Allows students to practice clinical skills through participation in interactive classroom exercises while gaining clinical experience. Prerequisite: Clinical Practicum (CLP 6945).

CLP 6945 Clinical Practicum in Psychology (1-3). Supervised experience in clinical techniques and methods. Prerequisites: Graduate standing and permission of the instructor.

CLP 6948 Clinical Internship (1-3). Clinical Internship in Psychology for Ph.D. candidates who have completed the Clinical Practicum and at least 45 graduate credit hours. Prerequisites: Graduate standing and permission of the instructor, CLP 6945.

CLP 6949 Advanced Clinical Internship (1-20). Advanced clinical internship is the second semester of internship. Students receive supervision in advanced clinical techniques and personal and professional development. Prerequisites: Graduate standing and permission of instructor.

CYP 5534 Groups as Agents of Change (3). Theory and practice in utilizing groups as agents of change or development in communities and organizations. Didactic presentation and structured exercises focus on relevant issues. Students design and implement problem-focused interventions, using class as client system.

CYP 5954 Community Psychology Field Experiences II (5). Same orientation and description as Field Experience

I. Students in this course will be able to pursue their work with community institutions in more depth. Prerequisite: Students enrolled in this course must have completed Community Psychology Field Experiences I.

CYP 6526 Psychological Methods of Program Evaluation (3). Development of skills for the psychological assessment monitoring and evaluation of human service programs with emphasis on the application of basic principles of behavioral science research in the field, exclusive of public school settings.

CYP 6536 Principles and Methods of Psychological Consultation (3). An analysis of the basic psychological approaches underlying consultation, with special emphasis on the practical application of the processes of learning, cognition, and interpersonal relations to techniques of consulting with various 'target' agencies, individual clients, and other professionals in community settings. Prerequisites: Graduate standing at FIU or permission of the instructor.

CYP 6766 The Psychology of Crosscultural Sensitization in a Multicultural Context (3). A series of weekly seminars to increase student sensitivity to working with clients from different cultural backgrounds. The objectives of the course are: (1) facilitating student awareness of cultural differences and their impact on social and human services delivery systems, (2) identifying the student's own personal cultural biases and values when interacting with culturally different persons, and (3) teaching students to develop culturally appropriate intervention skills.

CYP 6936 Current Issues in Community Psychology (3). An intensive analysis of contemporary theoretical, practical, and professional aspects of the field of Community Psychology. Topics discussed may lead to the graduate project required of each student. Prerequisites: Admission to graduate study in psychology (other graduate students admitted by permission of the instructor).

DEP 5056 Issues in Life-Span Developmental Psychology: Infancy through Old Age (3). A in-depth survey of theories, issues, methods, and data in life-span developmental psychology through the entire age range. Prerequisites: DEP 3001 or DEP 4464, or their equivalents, are recommended.

DEP 5058 Biological Basis of Behavior Development (3). Introduction to theory and research underlying behavioral development. Covers such pre-and post-natal determinants as evolution, genetics, neuroendocrines, as well as social development, behavioral ecology, and sociobiology. Prerequisites: Graduate standing or permission of the instructor. Corequisite: Proseminar courses.

DEP 5068 Applied Life Span Developmental Psychology (3). This course is designed to acquaint the student with various applications in life-span developmental psychology. An overview of general issues and areas of application is offered, and specific applications are considered. Prerequisites: Graduate standing or permission of the instructor.

DEP 5099 Proseminar in Infancy, Childhood, and Adolescence (3). Provides a comprehensive review of

issues in perceptual, cognitive, social, emotional, and personality development from infancy through adolescence. Prerequisites: Graduate standing or permission of the instructor. Corequisite: Proseminars.

DEP 5118 Current Issues in Cognitive and Perceptual Development in Infancy (3). Provides an in-depth analysis of current issues, methods, research and theory of cognitive and perceptual development during the first year of life. Special emphasis on object and event perception, memory, and imitation. Prerequisites: Two courses in developmental psychology -any level recommended.

DEP 5185 Emotional Learning and its Reversal (3). Theoretical analyses and methodological issues in the study of emotional learning. Prerequisites: Graduate standing or permission of the instructor.

DEP 5315 Proseminar in Parent-Child Relations (3). Provides an overview of key issues in parent-child relations including culture, socialization/genetics, fatherhood, timing, adoption, work, effects of children on parents, and parent training. Prerequisites: Graduate standing or permission of the instructor.

DEP 5344 Psychology of Moral Development (3). An introduction to the literature on moral development. Review and discussion of recent developments in this area. Prerequisites: Graduate standing or permission of the instructor.

DEP 5405 Proseminar in Psychology of Adulthood and Aging (3). A comprehensive review of topics in adulthood and aging including: biological changes, social processes, work, family, cognition, memory, personality, and psychopathology. Prerequisites: Graduate standing or permission of the instructor.

DEP 5608 Theoretical Perspectives in Developmental Psychology (3). The focus of this course is on the major paradigms, models, and theories that have been influential in developmental psychology, both historically and contemporaneously. Meta-theoretical issues, paradigmatic influences, and specific theories are considered. Prerequisites: Graduate standing or permission of the instructor.

DEP 5725 Seminar in Psychosocial Development (1). This course is designed to develop research skills and competencies in the area of psychosocial development. The emphasis of the course is on involvement in original research. Prerequisite: Permission of the instructor. Corequisites: Senior undergraduate or graduate standing.

DEP 5796 Methods of Developmental Research (3). Survey of issues and methods at all stages of life-span developmental research including theory, methods, design, and data reduction. Prerequisites: Graduate standing or permission of the instructor. Corequisite: Proseminars.

DEP 5936 Theory and Research Experience in Developmental Science (3). An advanced seminar that integrates research in the lab with readings and discussion of current issues, theory, and methods in developmental science. May be repeated. Prerequisites: Graduate standing and permission of instructor. Corequisites:

Independent research in a developmental lab (PSY 5918 or PSY 6971).

DEP 6117 Psychology of Caregiving (3). An advanced seminar focusing on one or more topics in depth and requiring literature reviews and research design. Topics may include timing of parenthood, adoption, and fatherhood.

DEP 6145 Psychology of Culture and Childhood (3). Extensive cross-cultural readings will serve as the focus for seminar discussion of cultural influences on children's biological, motor, perceptual, cognitive, social, and personality development. Prerequisites: Graduate standing or permission of the instructor.

DEP 6186 Social Development and Learning (3). Theories and facts of socio-emotional development, learning, and the acquisition and maintenance of social relationships in early life are examined critically. Prerequisites: DEP 2000 or DEP 2001 or equivalent.

DEP 6465 Psychology of Culture and Aging (3). An intensive examination of cultural influences on social and psychological aging processes including minority aging and involving seminar discussion and independent projects. Prerequisite: Graduate standing.

DEP 6466 Cognitive Processes in Aging (3). An intensive analysis of the background and recent developments in the area of age changes and age differences in intellectual functioning and learning memory processes. Prerequisite: DEP 5405.

DEP 6477 Psychology of Social Processes in Aging (3). An intensive analysis of the background and recent developments in theoretical models of social development, personality processes, and social processes in the older adult. Prerequisite: DEP 5405.

DEP 6645 Cognition and Language (3). Course covers the acquisition of cognitive processes and language, and their interdependence. Theory and research focusing on innate vs. learned aspects are discussed. Prerequisites: Graduate standing or permission of the instructor.

DEP 6936 Current Literature in the Psychology of Infancy, Childhood, and Adolescence (3). This seminar will present and evaluate current research articles in the major journals in infant, child, and adolescence psychology. Prerequisite: Second year graduate standing.

DEP 6937 Current Literature in the Psychology of Adulthood and Aging (3). This seminar will present and evaluate current research articles in the major journals in the psychology of adulthood and aging. Prerequisite: Second year graduate standing.

DEP 6945 Life-span Developmental Psychology Practicum (3). This is an individually tailored program where students will work in an agency on a specific problem or project, culminating in a final written report. Prerequisite: Second year graduate standing.

DEP 7069 Seminar in Life-Span Cognitive Developmental (3). This graduate seminar will examine, through intensive reading and seminar discussion, the major theories, issues and empirical research on cognitive growth, change and decline from infancy through old age.

Prerequisites: Two courses in Developmental Psychology (any level).

DEP 7096 Seminar in Psychology of Life-Span Social Development (3). This course includes a consideration of general issues and discussion of the application of life-span models to selected topics development. Prerequisites: Graduate standing or permission of the instructor.

EAB 5098 Proseminar in the Experimental Analysis of Behavior (3). An advanced survey of the principles of respondent and operant conditioning and the bases of action in both social and non-social settings. Prerequisites: EAB 3002, EAB, 4034, or equivalents.

EAB 5655 Advanced Methods of Behavior Change (3). An intensive study of selected methods of modifying human behavior, emphasizing the applications of the principles of respondent and operant conditioning, as well as those derived from modern social learning theories. Practice and role playing opportunities are provided in behavior therapy, relaxation therapy, behavior modification, biofeedback or similar behavioral approaches. Prerequisites: EAB 4794, CLP 4374, CYP 4144; enrollment in an authorized program; equivalent background; or permission of the instructor.

EAB 5797 Single-Case Research Methods (3). Intensive study of designs, strategies, and methods of single-case behavioral research. Prerequisites: Graduate standing or permission of the instructor.

EAB 6707 Developmental Behavior Analysis (3). A survey of the application of the principles, methods, and applications of experimental behavior analysis to various life-span segments and developmental themes. Prerequisites: Proseminar in Behavioral Analysis or an undergraduate EAB course (EAB 3002, EAB 4034, or EAB 4794).

EAB 6717 Applications of Verbal Behavior for Autism and Asperger Syndrome (3). Verbal behavior is analyzed by function. Structural and developmental issues as well as implications for language training and ethical application to autistic populations are integrated throughout. Prerequisite: Graduate standing.

EAB 6770 Behavioral Technologies (3). Evaluating interventions, staff training, managing treatment teams, as well as, data-based evaluation of teaching procedures, behavior outcomes and team member performance. Prerequisite: Graduate standing.

EAB 6780 Ethical Code in Behavior Analysis (3). Ethical issues in clinical Behavior Analysis are examined including selecting behavior targets, monitoring intervention success and transferring control to existing environmental contingencies. Prerequisite: Graduate standing.

EAB 6941 Practicum in Applied Behavior Analysis (3). This course provides students with supervised experience in designing and implementing behavior plans. May be repeated once. Prerequisites: EAB 5655, EAB 6707.

EDP 6935 Special Topics in Educational Psychology (VAR). An intensive analysis of a particular topic in educational psychology. Students must have topics approved by the instructor prior to registration. Open only

to advanced and graduate students in the College of Education.

EXP 5099 Proseminar in Experimental Psychology (3). Provides a comprehensive review of current research and theory in areas such as learning, memory, cognition, sensation, and perception. Prerequisites: Graduate standing or permission of the instructor.

EXP 5406 Theories of Learning (3). The major theoretical systems of learning are covered, with the intent of determining how well each accounts for the phenomena of learning. Emphasis is placed on exploring the controversial issues raised by extant theories, and the experimental resolution of these theoretical controversies. The impact of theory on current thinking about learning is considered.

EXP 5508 Applied Cognitive Psychology (3). Covers the basic theories of cognitive psychology perception, attention, memory, learning, knowledge, with emphasis on application to real-world problems. Prerequisite: Graduate standing.

EXP 5527 Memory and Consciousness (3). The relation of memory and consciousness is explored with emphasis on issues of current research and theoretical work from both a cognitive and a neuropsychological perspective. Prerequisite: Graduate standing.

EXP 5667 Cognitive Neuroscience (3). Investigation of the relation between mind and brain. Discuss literature from both patient studies and from the growing research in neuroimaging. Prerequisite: Graduate standing.

EXP 7747 Practicum in Causal Modeling (3). Introduction to linear structural relations models, emphasizing logical and practical problems in inferring causation for experimental and correlational research designs.

INP 5095 Proseminar in Industrial Psychology (3). Provides coverage of industrial and personnel psychology topics such as job analysis, personnel recruitment and selection, legal aspects of employment, performance appraisal, and training design and evaluation. Prerequisites: Acceptance to Master's or Ph.D. program in Psychology.

INP 5136 Psychology of Legal Consultation (3). Practice in basic non-clinical areas in which psychologists assist attorneys, including jury selection, surveys, and simulations. Prerequisites: SOP 6098 or equivalent.

INP 6090 Applied Psychology and Organizational Consulting (3). An overview of the organizational consulting process, including proposal development, managing projects and client relationships, ensuring information integrity, and understanding ethical issues. Prerequisite: Graduate standing.

INP 6115 Psychology of Culture and Organizations (3). An overview of theory and research examining the psycho-social environment of organizations, including the factors that shape organizational cultures and climate, along with the implications for workplace motivation, morale, and productivity. Prerequisite: Graduate standing.

INP 6216 Personnel Selection (3). Characteristics of Personnel Selection systems used in organizations.

Validity generalization, utility, applicant reactions, and legal cases pertaining to employee selection. Prerequisites: Proseminar in I/O and graduate level statistics course.

INP 6235 Applied Psychology of Training and Development (3). In-depth study of principles of behavior and attitude change in organizations. Topics include organization analysis, program design and implementation, and evaluation of results. Prerequisites: Acceptance to M.S. or Ph.D. program in Psychology and SOP 5616.

INP 6611 Organizational Stress (3). This seminar examines conceptualizations, causes, consequences, and correlates of stress, strain, and coping in the workplace.

INP 6940 Strategies and Methods of Applied Psychological Research (3). A practicum course in the psychological research strategies and the application of computers in the analyses of psychological data.

LIN 5701 Psychology of Language (3). An overview of the psychology of language and the psychological 'reality' of linguistic structure. Behavioristic vs. cognitive views of psycho-linguistics are examined. Consideration is given to the biological bases of language and thought, language acquisition, and language pathology.

PCO 5251 Couples and Family Systems (3). An overview of theory, research, and treatment issues related to couples and family systems. The course covers relevant techniques, training, and professional issues. Prerequisite: Graduate standing.

PCO 5311 Theory, Treatment, and Research of Addictive Behavior (3). An overview of theory, treatment, and research findings pertaining to the process and development of addictive behavior. This course covers treatment issues related to substance abuse disorders. Prerequisite: Graduate standing.

PCO 6206 Principles & Practices of Counseling & Psychotherapy (3). Examination of the principles & practices of counseling and psychotherapy derived chiefly from cognitive behavioral psychology. Prerequisite: Graduate standing.

PSB 6247 Biological Bases of Behavior (3). Advanced survey of biological bases of behavior. Topics include neuroanatomy, functional organization and electrochemical processes of the nervous system, and neural bases of learning and memory. Prerequisites: Graduate standing or permission of the instructor.

PSY 5206C Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3122 and 3123, or their equivalents.

PSY 5246C Multivariate Analysis in Applied Psychological Research (3). Covers basic techniques of multivariate analysis, emphasizing the rationale and applications to psychological research. Includes multiple regression, Hotellings T, MANOVA, principal component analysis, and factor analysis. Prerequisites: STA 3123 or equivalent; linear algebra recommended.

PSY 5605 Proseminar: History and Systems of Psychology (3). An examination of the historical foundations of modern psychology and survey of current systems and schools of psychology. Prerequisites: Graduate standing or permission of the instructor.

PSY 5908 Directed Individual Study (VAR). Under the supervision of an instructor in the graduate degree program, the graduate student delves individually into a topic of mutual interest which requires intensive and profound analysis and which is not available in a formal offering. May be repeated once. Prerequisite: Permission of the instructor.

PSY 5918 Supervised Research (VAR). Research apprenticeship under the direction of a research professor or a thesis advisor. Prerequisite: Full graduate admission.

PSY 5930 Qualitative Research Methods in Development Psychology (3). Review recent developments in qualitative research methods. The focus will be on the application of these methods to research on human development. The interpretation of qualitative and quantitative methods will be stressed.

PSY 5939 Special Topics in Psychology (3). Special topics will be announced in advance.

PSY 6945 Teaching of Psychology (1). An introduction to the art of college teaching and specifically the art of teaching psychology. It is designed for first-year graduate students to provide instruction and support for teaching college classes. Prerequisite: Graduate standing.

PSY 6956 Psychology Field Experience (VAR). Placement of students in applied settings for the purpose of developing community-based experience in the application of theoretical and methodological approaches. Prerequisite: Graduate standing.

PSY 6971 Master's Thesis in Psychology (3-6). Supervised research on an original research project submitted in partial fulfillment of Master's degree requirement.

PSY 7940 Supervised Teaching in Psychology (1). Supervised teaching under the guidance of faculty advisor. May be repeated only three times. Prerequisite: Doctoral graduate study.

PSY 7980 Ph.D. Dissertation (1-12). Supervised research on an original research project submitted in partial fulfillment of doctoral degree requirements. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

SOP 5058 Proseminar in Social Psychology (3). An in-depth examination of the role of social psychology in the social sciences and the major substantive problems as they relate to contemporary societal issues. Minimum Prerequisites: An introductory course in social psychology or its equivalent.

SOP 5081 Psychological Influences on Health and Illness (3). Provides a comprehensive review of theory, research, and interventions in the field of health psychology. Prerequisites: Graduate standing or permission of the instructor.

SOP 5316 Theories and Methods of Cross-Cultural Research (3). An intensive analysis of contemporary

theories and methods of cross-cultural research in psychology including topics such as: culture as a research treatment, differential incidence of personality traits, the use of ethnographies, 'etic' vs. 'emic' distinction. Prerequisites: Graduate standing or permission of the instructor.

SOP 5616 Social Psychology of Organizations (3). The application of concepts and theories from social psychology and sociology to the organizational setting. Emphasis will be on role theory, value formation and the operation of norms, including their development and enforcement. Formal and informal organization structure, power and authority concepts, and leadership theories will be covered. Communication processes and networks and their effects on task accomplishment and satisfaction will be included.

SOP 6098 Proseminar in Legal Psychology (3). The application of psychological research methods and psychological knowledge to contemporary issues in criminal and civil litigations. Prerequisite: Graduate standing.

SOP 6441 Seminar in Social Cognition (3). Provides a critical review of current theory and research on social cognition and its relationship to stereotyping, persuasion, attribution, and social perception. Prerequisite: Graduate standing.

SOP 6752 Psychology of Juries (3). A review of psychological research on juries and jury decision-making. Emphasis is placed on the critical analysis of jury research and relevant case law. Prerequisite: Graduate standing.

Religious Studies

Christine Gudorf, *Professor and Chairperson*

Daniel Alvarez, *Visiting Instructor*

Whitney Bauman, *Assistant Professor*

Ana Maria Bidegain, *Associate Professor*

Steven Heine, *Professor*

Erik Larson, *Associate Professor and Undergraduate Program Director*

Nathan Katz, *Professor*

Aisha Musa, *Assistant Professor*

Lesley Northup, *Associate Professor*

Oren B. Stier, *Associate Professor and Graduate Program Director*

Albert Wuaku, *Assistant Professor*

Zion Zohar, *Assistant Professor*

Affiliated Faculty

Thomas A. Breslin

Bongkil Chung

Kathryn L. McKinley

Mohiaddin Messbahi

Thomas Norris

Meri-Jane Rochelson

Dennis Wiedman

Master of Arts in Religious Studies

FIU's Master of Arts in Religious Studies is designed to give students maximum flexibility in pursuing their research interests, while providing a firm foundation in both the general academic study of religion and the student's area of specialization.

The M.A. is a 36-credit hour program: 6 hours of core seminars, 12 hours of 'track' courses, and either 12 hours of electives and 6 hours of thesis work, or 18 hours of electives.

Requirements for Admission

Application to the Master of Arts program in Religious Studies is made through FIU's Graduate Admissions Office. The usual minimum requirements for admission include a baccalaureate degree from an accredited college or university and:

1. A graduate degree in the humanities or social sciences from an accredited college or university
or

2. A score of 550 or higher on the verbal portion of the Graduate Record Examination (GRE)
or

3. An UG 60 GPA of 3.5, earned no more than 7 years prior to application.

A student who does not meet any of these three requirements may qualify for admission by fulfilling the following conditions:

a. Writing an acceptable essay on a topic assigned by the department in a monitored and timed session.

and one of the following:

b. A GPA of at least 3.25 in 12 or more hours of graduate study in departmental courses (as a conditionally admitted student)
or

c. A score of at least 475 on the verbal portion of the GRE.

4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for

the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Applications for admission are available from the FIU Office of Graduate Admissions and are evaluated by the Departmental Graduate Studies Committee.

Degree Requirements

1. Prerequisite: undergraduate course REL 3308, Studies in World Religions, to be completed by the end of the first semester of graduate work.
2. Two core seminars. The first, the "Seminar on Sacred Texts," will be offered every fall. The second core seminar, "Modern Analysis of Religion," will be offered every spring or summer.
3. A track of four related courses chosen in consultation with the Graduate Program Director.
4. Either 12 hours of elective courses and a thesis (involving either 6 hours of thesis credit or 3 of thesis and 3 of independent research), or 18 hours of electives and no thesis. Students must register with the Department's Graduate Committee for thesis track or non-thesis track during the semester in which they will complete 24 hours of credit in the program. Registration in the thesis track will require securing the agreement of a member of the Graduate Faculty to serve as Thesis Advisor.

The Department of Religious Studies does not regard the non-thesis track as appropriate preparation for further graduate study in Religious Studies.

Accelerated Master of Arts in Religious Studies

Admission Requirements

- Current enrollment in the Bachelor's Degree program in Religious Studies, or any humanities major that allows at least 12 hours of electives
- Completed at least 60 hours of coursework
- Current GPA must be 3.4 or higher.
- Two letters of recommendation.
- Approval of the Graduate Committee.
- Submission of acceptable writing sample, complete with bibliography, to Turnitin.com

Graduation Requirements

Completed BA at FIU including,

REL 4931 Religious Studies Seminar

REL 6935 Seminar in Sacred Texts

REL 6013 Modern Analysis of Religion

Six additional hours of graduate credit in Religious Studies (for majors, graduate level enrollment in six hours of Focus Courses) must also be taken as Graduate courses

Required:

- A four course track, either in one religious tradition, or one theme across religious traditions, approved by the Graduate Director.
- The two graduate seminars taken in the senior year of the BA as well as the Focus courses taken at the Graduate level (limit 12 hours double-counted).
- Six credits of electives selected from the Religious Studies Graduate Course Offerings.
- Six hours of thesis, or six additional hours from the Religious Studies Graduate Course Offerings.

All courses must be completed with a grade of "B" or above.

Course Descriptions

Definition of Prefixes

REL-Religion.

REL 5018 Religion, Literature, and Critical Theory (3). Examines intersections between world religions and contemporary literature in light of modern theories of interpretation. Themes explored include scriptural rereadings and spiritual journeys. Prerequisites: Graduate standing or permission of the instructor.

REL 5023 Religious Ritual (3). Examines the critical relationship of ritual, religious practice and belief, and culture, while introducing the principles and methods of ritual studies. Prerequisites: Graduate standing or permission of the instructor.

REL 5025 Myth and Religion (3). Investigates the role, function, and meaning of myth in religious experience and practice through an examination of specific myths, mythic patterns, and critical theories. Prerequisites: Graduate standing or permission of the instructor.

REL 5122 African-American Religion (3). Survey of development of African-American Religions with emphasis on North American experience during slavery, Jim Crow and contemporary eras. Prerequisites: Graduate standing or permission of the instructor.

REL 5125 Religion and Public Life (3). Examines the relationship of religion and government in the United States, with focus on the First Amendment and issues of separation of church and state. Prerequisites: Graduate standing or permission of the instructor.

REL 5137 North American Religion (3). Historical examination of religious groups and influences in North America, focusing on their contributions and cultural impact. Prerequisites: Graduate standing or permission of the instructor.

REL 5138 Sects, Cults, and New Religions (3). Explores and critically analyzes the multiplicity of new American religious movements and the unique combination of factors that has encouraged them. Prerequisites: Graduate standing or permission of the instructor.

REL 5143 Latinas and Religion in the Americas (3). This course will review the practices, beliefs, social and political activism, and theological and biblical reflections of Latinas in the Americas from a historical perspective to modern day.

REL 5144 Women and Religion (3). Examines the influence of religion on social construction of gender and the definition of woman's nature and role, with a focus on Western developments. Prerequisites: Graduate standing or permission of the instructor.

REL 5149 Religion, Violence, and Conflict (3). Is religion peaceful or violent? Theoretical analysis of the role of religion in violent, social and political conflicts, such as the Crusades, the Arab-Israeli conflict, and the Haitian Revolution. Prerequisites: Graduate standing or permission of the instructor.

REL 5165 Science and Religion (3). Surveys the interaction between science and religion from conflict models to integration; special attention to specific natural sciences including cosmology and biology. Prerequisites: Graduate standing or permission of the instructor.

REL 5182 Religion and Ethics (3). Investigation of methods, resources for ethics in world religions, and some examples of issues. Prerequisites: Graduate standing or permission of the instructor.

REL 5183 Ethics and Environment (3). A study of cultural and religious sources of contemporary ethical attitudes and values about the environment. Also includes consequences of these for specific environmental issues. Prerequisites: Graduate standing or permission of the instructor.

REL 5184 Sex, Ethics, and Religion (3). Religious treatment of sexual activity, desire and procreation in major religions, with special focus on contemporary scientific research on sexuality and spirituality. Prerequisites: Graduate standing or permission of the instructor.

REL 5192 Seminar in Mysticism (3). The issues of consciousness, language, and morality in mystical tradition of the east and west, including Kabbalah, Neoplatonism, Sufism, Yoga, Taoism, and Zen. Prerequisites: Graduate standing or permission of the instructor.

REL 5208 Studies of the Dead Sea Scrolls (3). Overview of the Dead Sea Scrolls explores the new techniques being used in their study. Prerequisites: Graduate standing or permission of the instructor.

REL 5211 Bible I: The Hebrew Scriptures (3). Extensive reading in the Hebrew Scriptures, how the various texts of the Hebrew Scriptures came to be written, and how they can be interpreted - both within the context of faith communities and within the cultural contexts out of which the texts were written. Prerequisites: Graduate standing or permission of the instructor.

REL 5232 Hebrew Exegesis I (3). Provides a comprehensive survey of the fundamentals of the language of the Hebrew Bible designed to equip the student for the task of exegesis. Prerequisites: Graduate standing or permission of the instructor.

REL 5233 Hebrew Exegesis II (3). A continuation of Hebrew Exegesis I emphasizing the reading of select passages of the Hebrew Bible to develop skills in translation and interpretation. Prerequisites: REL 5232 and graduate standing.

REL 5242 New Testament and Qumran (3). Detailed investigation of the possible contacts between the New Testament and Qumran in such areas as Biblical Exegesis, Apocalypticism, Eschatology, and Messianism. Prerequisite: Graduate standing.

REL 5244 Bible II: The New Testament (3). History, theology, and interpretation methods of the New Testament. Prerequisites: Graduate standing or permission of the instructor.

REL 5262 New Testament Greek Exegesis I (3). A detailed overview of the principles of Greek grammar that

shows the student how to use Greek in the study of the New Testament. Prerequisite: Graduate standing.

REL 5263 New Testament Greek Exegesis II (3). Careful reading of selected passages of the New Testament and early Christian literature designed or selected to develop skills in translation and interpretation. Prerequisite: REL 5262 and graduate standing.

REL 5331 Religions of India (3). Topics include: religion in prehistoric and ancient India, classical Hindu texts and schismatic movements, medieval theism, the acculturation of extrinsic religions, Hindu-Muslim-Sikh syncretism, and the modern period. Prerequisites: Graduate standing or permission of the instructor.

REL 5346 Seminar on Buddhism (3). The central doctrines and rituals of the Buddhist tradition, including the views on causality, mindfulness, monasticism, salvation, purity, and ethics in the Theravada, Tantric, and Zen schools. Prerequisites: Graduate standing or permission of the instructor.

REL 5352 Religions of East Asia (3). The history, philosophy, and cultural impact of the major religious traditions of East Asia, including Confucianism, Taoism, Buddhism, Shinto, and syncretic folk religions. Prerequisites: Graduate standing or permission of the instructor.

REL 5360 Classical Arabic (3). Introduces the grammar and vocabulary of classical Arabic necessary for developing the ability to read classical texts.

REL 5365 Advanced Interpretation of the Quran: Gender and Jihad (3). History, interpretation and translation of the Quran through a close examination of passages related to issues of gender and jihad.

REL 5368 Voice of the Prophet (3). Familiarizes students with the position and history of prophetic traditions (Hadith) in Islam.

REL 5372 African Spirituality (3). Intensive investigation of select forms of traditional spirituality in sub-Saharan Africa, including ritual, sacrifice, and spirit possession, and Africanized Christian and Islamic devotion. Prerequisites: Graduate standing or permission of the instructor.

REL 5384 Rasta, Vodou, Santeria (3). Critical, sociological and phenomenological analysis of the history, beliefs, rituals, and social significance of Rastafarianism, Vodou, and Santeria on the Caribbean and the United States. Prerequisites: Graduate standing or permission of the instructor.

REL 5385 Native American Religions (3). An advanced study of Native American religions and the methods employed to investigate them. Attention will be given to traditional and contemporary expressions. Prerequisites: Graduate standing or permission of the instructor.

REL 5386 Latinas' Religious Experience (3). Focus on the diversity of religious experiences among women born and educated in Latin cultures such as: Brazil, Haiti and Hispanic American, including Hispanic in the U.S.

REL 5387 Native Religions of Latin America (3). Focuses on major culture areas, history of tribes, changes in religious practice through contact with Christianity.

REL 5394 Jewish Mystical Texts (3). A study of the major movements and figures in the development of Jewish mysticism through its significant texts, from biblical times up to the present. Prerequisites: Graduate standing or permission of the instructor.

REL 5435 Feminist Theology (3). Surveys the development of feminist theology, both deconstructive and reconstructive, principally in Christianity, but also in other religions. Prerequisite: Graduate status.

REL 5462 Religion and Philosophy (3). Examines the use of philosophical reasoning to justify religious belief or its rejection. Such topics as natural theology, atheism and fideism will be examined. Prerequisites: Graduate standing or permission of the instructor.

REL 5488 Theology and Liberation Movements (3). Comparison of Latin American, feminist, and African American theologies of liberation, including methods, social analysis, social location, interlocutor, ecclesiology, theology, eschatology and use of scripture. Prerequisites: Graduate standing or permission of the instructor.

REL 5495 Interreligious Dialogue (3). The intellectual basis, the classical formulations, and the contemporary practice of interreligious dialogue in a variety of cultural settings. Prerequisites: Graduate standing or permission of the instructor.

REL 5501 History of Christianity I (3). Christianity from its origins to the Middle Ages. Doctrinal and organizational development of the church and characteristic aspects of its spiritual life. Prerequisites: Graduate standing or permission of the instructor.

REL 5502 Saints, Witches and Missionaries (3). Survey of movements, reforms, divisions, and major ideas within institutional Christianity, 1400 to present. Prerequisites: Graduate standing or permission of the instructor.

REL 5515 History of Early Christianity (3). Origin and growth of Christianity from the first to the fifth century, and the adaptation of its message to the Greco-Roman world. Prerequisites: Graduate standing or permission of the instructor.

REL 5565 Modern Catholicism (3). Theology and liturgical practice in the Roman Catholic Church from Trent (16th c) to the present, with primary and secondary sources. Prerequisites: Graduate standing or permission of the instructor.

REL 5605 Studies in Judaism (3). Historical overview of Jewish belief and practice, with special consideration of Jewish ritual life. Prerequisites: Graduate standing or permission of the instructor.

REL 5606 Rabbinic Judaism (3). The theology and ideologies of the 1700-year period in the history of Judaism known as Rabbinic Judaism. Prerequisites: Graduate standing or permission of the instructor.

REL 5614 Ancient Judaism (3). The history, literature and characteristic institutions of Judaism from the Persian period to Amoraic times. Attention given to developments in the land of Israel and the diaspora. Prerequisites: Graduate standing or permission of the instructor.

REL 5615 Medieval Judaism (3). The works of major thinkers in Medieval Judaism, including Maimonides,

Nahmanides, Halevi, Luzatto, and such topics as Jewish mysticism (Kabbalah) and Hasidism. Prerequisites: Graduate standing or permission of the instructor.

REL 5616 Religion, Culture and Politics in Israel (3). Exploration of the history of modern Israel. Discussion of issues, state and religion, ethnic and denominational tensions, democratic characters of the state and the Israeli-Palestinian conflict.

REL 5617 Jews and Muslims in the Middle Ages (3). Study of Jewish culture from the rise of Islam in the 7th century -- usually considered the start of Jewish Medieval Era -- to the end of the Middle Ages.

REL 5618 Modern Judaism (3). Explores the ways in which religious beliefs and traditional concepts of Jewish self identity have changed as a result of emancipation and participation of Jews in the modern Western world. Prerequisites: Graduate standing or permission of the instructor.

REL 5619 Holocaust Representations: Religion and Remembrance (3). Examines the symbolic and cultural representations of the Holocaust through its religious/theological discourse and its remembrance. Implications for Jewish life and thought are also explored. Prerequisites: Graduate standing or permission of the instructor.

REL 5620 Kabbalah and Gender (3). Exploration of the theme of Gender within the context of Jewish mysticism. Analysis of central Kabbalistic texts pertaining to the issue of gender and sexuality.

REL 5628 Jewish Thought and Thinkers (3). The principal of Sephardic and oriental thinkers since the Middle Ages includes philosophers, rabbins.

REL 5629 Kabbalah, Peace and War (3). Study of the basic categories of Kabbalah as an esoteric doctrine and evaluate its unique approach to peace and war within the historical context of the Jewish mystical experience.

REL 5698 Sephardic and Oriental Jewry Colloquium (3). In depth examination of important issues in the study of Sephardic and Oriental Jewry.

REL 5907 Independent Study in Sephardic and Oriental Jewry (1-6). For advanced students who possess proven significant knowledge of the field of Sephardic and Oriental Jewry, to engage in a guided research on the topic of their choice within the field. Prerequisites: REL 4610, REL 5xxx Jews of Arab Lands, REL 3xxx Sephardic Jewry, SYD 4606.

REL 5934 Graduate Pedagogy (1-3). Advanced work in Religious Studies pedagogy, including classroom teaching, assignment development and grading, and seminar discussion of pedagogical issues.

REL 5945 Internship in Sephardic and Oriental Jewry (1-3). Work and study with the leadership of and research one of the Sephardic and Oriental communities in Florida. This serves as field study in which the classroom learning comes alive. Prerequisites: REL 4610, REL 5xxx Jews of Arab Lands, REL 3xxx Sephardic Jewry, SYD 4606.

REL 6013 Modern Analysis of Religion: Classic Texts in Religious Studies (3). Surveys history of religious approaches to religion (Eliade, Otto), social scientific

approaches to religion (Freud, Durkheim, Weber, Geertz), and postmodern / poststructuralist approaches (Foucault, de Certeau, Baumann, Braudillard, Butler etc.). Prerequisites: Graduate standing or permission of the instructor.

REL 6195 Sociological Approaches to Religion (3). Sociological Method/Theory in religious studies scholarship on religious ritual around life cycle events. Individual and group projects. Prerequisites: Graduate standing or permission of the instructor.

REL 6285 Biblical Archaeology (3). Introduces the methods used in archaeological excavations. Finds from the Bronze Age to the Greco-Roman period are examined for the ways they bring new understanding to the texts of the Bible. Prerequisites: Graduate standing or permission of the instructor.

REL 6322 Seminar in Western Religions (3). Similarities and differences in the three Western monotheistic religions of Judaism, Christianity and Islam during their historical development. Prerequisites: Graduate standing or permission of the instructor.

REL 6347 Seminar on Pali Buddhism (3). The "original" teachings of the Buddha as preserved in the Pali Tipitaka and its commentaries readings in translation. Students knowing Pali will work with instructor. Prerequisites: REL 4340 or equivalent or permission of instructor.

REL 6348 Seminar on Tibetan Buddhism (3). Study of influential Tibetan texts in their historical contexts. Prerequisites: REL 4340 or REL 3344 or equivalent or permission of instructor.

REL 6395 Seminar in Asian Religions (3). Asian religious traditions, texts, rituals, or artifacts. May be repeated with change in content. Prerequisites: Graduate standing or permission of the instructor.

REL 6442 Religion in the Contemporary World (3). Society and religion in processes of secularization and pluralism. Attention to religious interpretations of sociocultural processes. Prerequisites: Graduate standing or permission of the instructor.

REL 6696 Indian Judaism (3). The stories, rituals, interactions and identities of four Indian Jewish communities and their implications for Indo-Israeli relations and contemporary American Judaism. Prerequisite: Graduate standing.

REL 6921 Colloquium (1). Students attend a minimum of three lectures, conferences, or professional presentations, with seminar report and discussion. May be repeated. Prerequisite: Graduate standing.

REL 6930 Pedagogy Workshop (1). Two-day teaching workshop offered by the Academy for the Art of Teaching. Prerequisite: Graduate standing.

REL 6931 Pedagogy Seminar (1). Provide Teaching Assistants with pedagogical skills, such as lecture preparation, exam preparation and grading, advising and small group work. Prerequisite: Graduate standing.

REL 6935 Seminar in Sacred Texts (3). Sacred texts with a common theme from several religions. Problems of interpretation are a central concern. Prerequisites: Graduate standing or permission of the instructor.

REL 6938 Pedagogy Forum (1). Students attend at least six (6) teaching forums for certificate offered by the Academy for the Art of Teaching. Prerequisite: AAT Summer Teaching Workshop.

REL 6940 Teaching Religious Studies (3). Assist the instructor in an introductory course and attend seminar meetings. Topics: 'faith' vs 'objectivity' in the classroom; student diversity; religious studies as a profession; designing an introductory course. Prerequisites: Graduate standing or permission of the instructor.

REL 6942 Teaching Internship (1-3). Advanced work in Religions Studies pedagogy, including classroom teaching, assignment development and grading, and seminar discussion of pedagogical issues. Prerequisite: Graduate standing.

REL 6971 Thesis (1-6). For students working on the thesis for the M.A. in Religious Studies. Prerequisites: Graduate standing and permission of the instructor.

REL 6972 Thesis Proposal Development (3). Elements of thesis construction, including thesis statement, feasibility research, bibliography, methodology. Initial 3 credits of thesis may be required for some students by GPD and thesis advisor. Prerequisite: Permission of instructor.

Sociology and Anthropology

Richard Tardano, *Associate Professor and Chairperson*

Maria Aysa-Lastra, *Assistant Professor*

Jerald B. Brown, *Associate Professor*

Janet M. Chernela, *Professor*

Emerita Juliet Erazo, *Assistant Professor*

Stephen M. Fjellman, *Professor Emeritus*

Chris Girard, *Associate Professor*

Hugh Gladwin, *Associate Professor and Director, Institute for Public Opinion Research*

Liliana Goldin, *Professor*

Guillermo J. Grenier, *Professor*

Antonio Jorge, *Professor Emeritus*

A. Douglas Kincaid, *Associate Professor and Vice Provost, International Studies*

Abraham D. Lavender, *Professor*

Barry B. Levine, *Professor Emeritus*

Shearon A. Lowery, *Associate Professor*

Sarah J. Mahler, *Professor and Director, Center for Transnational and Comparative Studies*

Anthony P. Maingot, *Professor Emeritus*

Kathleen Martin, *Associate Professor*

Betty Hearn Morrow, *Professor Emerita*

Laura Ogden, *Assistant Professor*

Vrushali Patil, *Assistant Professor*

Lisandro Perez, *Professor*

Marifeli Perez-Stable, *Professor*

Jean M. Rahier, *Associate Professor and Director, Graduate Program*

Alex Stepick, *Professor and Director, Immigration and Ethnicity Institute*

William T. Vickers, *Professor Emeritus*

Dennis Wiedman, *Associate Professor*

Lois West, *Associate Professor*

Affiliate Faculty

David B. Bray, *Professor, Environmental Studies*

William W. Darrow, *Professor, Public Health*

Bruce Nissen, *Professor, Labor Studies*

Amy Paul-Ward, *Assistant Professor, Occupational Therapy*

Marc Weinstein, *Associate Professor, Labor Centers*

The Comparative Sociology Graduate Program at Florida International University provides a unique opportunity to integrate the traditional disciplines of sociology and anthropology. We believe that students will be better prepared for careers by gaining competencies in research methods, theoretical approaches and other critical tools needed for social inquiry offered by both disciplines. The Program's faculty is particularly strong in several subfields: environment; international and transnational migration; Diasporas; globalization and transnationalism; development and social change; applied research; and the social constructions of identities including race, ethnicity, gender, sexuality and nationality. Faculty research is exceptionally strong in the Americas including the Caribbean, Mexico, Central and South America, and the diverse local urban region of South Florida. FIU is situated in the one of the most interesting regions of the world—a hemispheric crossroads of social and natural resources bridging the United States to the rest of the Americas and across the Atlantic to Europe. Miami is home to millions of immigrants; it has the highest percentage of immigrants of

any metropolitan area in the United States. Our graduate program capitalizes on this unique location by bringing students into local, regional and transnational research projects. Faculty members are directly involved in research occurring at many of FIU's centers and institutes including the Latin American and Caribbean Center, the Center for Labor Research and Studies, the Immigration and Ethnicity Institute, the Women's Studies Program, the Cuban Research Institute, the Institute for Public Opinion Research, the African New-World Studies program, and the Center for Transnational and Comparative Studies. The Comparative Sociology Graduate Program provides professional training for careers in higher education, non-governmental organizations, government, and the private sector.

Admission Process & Requirements

All applications for admission must be submitted on-line through the University Graduate School process. Please see <http://gradschool.fiu.edu> for all the necessary information. Please do not contact the department for admission forms. A list of the minimum requirements for admission to FIU can be found at <http://www.fiu.edu/orgs/register/catalog/graduate> and should guide applicants in preparing what is needed to apply on-line. The application for admission to FIU as a graduate student must be submitted and the application fee of \$30 paid before the Comparative Sociology Graduate Program Committee may consider the applicant for admission.

IN ADDITION to filing an on-line admission application, please send the following directly to the Graduate Program Director, Department of Sociology/Anthropology, Florida International University, UP Campus, DM 334, Miami, FL 33199:

1. A separate letter of application. This letter should include a statement expressing the applicant's academic and professional objectives and should indicate with which faculty the applicant would wish to work.
2. Applicants must request three (3) letters of recommendation from individuals able to comment on their academic ability and promise. These letters of recommendation should be sent directly to the Director of the Comparative Sociology Graduate Program. The department will then forward copies to the Admissions Office.
3. Copies of transcripts. These copies do not need to be copies of official transcripts but must show the courses taken and grades received at each previous university.
4. Applicants are strongly encouraged to send written examples of academic or other relevant professional work that may support their application. Similarly, applicants are encouraged to send as part of their application any evidence of contact with departmental faculty with whom the applicant would likely work.

Application Deadlines

The Department offers rolling admissions but recommends that students apply early (before January 15 for the Fall semester) in order to qualify for the widest array of FIU funding (see <http://www.fiu.edu/~ugs/financial.html>). We admit students throughout the year but prefer that they enroll for the first time in the fall whenever possible. The

deadlines for receipt of applications—including all supporting materials and letters of recommendation—for those seeking admissions are:

Fall Semester:

January 15 (for consideration for Presidential Fellowships and Teaching Assistantships)
July 1 (final deadline)

Spring Semester:

October 15

Admissions Standards

To be admitted into the Comparative Sociology Graduate Program a student must meet the University's graduate admission requirements which can be found in the University Graduate School's website: gradschool.fiu.edu. In addition, applicants must have:

1. An undergraduate grade point average (GPA) of 3.25 or higher and a combined score of 1000 (M.A.) and 1120 (Ph.D.) or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE). The student must also have a GPA of 3.5 on any previous graduate work.
2. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Although a baccalaureate major in Sociology or Anthropology is helpful, it is not required for admission to the program. Newly admitted graduate students who have no prior course work in sociology, anthropology, or quantitative methods will be provided with readings to help them bridge their background to the demands of our program.

Financial Aid

Applicants to FIU may qualify for one of several different opportunities to finance their studies:

1. FIU's Presidential Fellowship for outstanding applicants
(see <http://www.fiu.edu/~ugs/financial.html>)
2. Departmental Teaching Assistantships (TAs). The department has a limited number of TA positions. Teaching assistantships are allocated on a competitive basis and typically pay for tuition (but not fees), medical insurance and provide a stipend (approximately \$5,000 per semester). To be considered for an assistantship, the applicant must make such a request in writing to the Graduate Program Director **prior to April 1**. The awarding of teaching assistantships will be made by the Graduate Program Committee. Students receiving an assistantship are required to perform approximately 20 hours of teaching related duties per week and are required to attend several days of a seminar on teaching. TA positions are renewable on a competitive basis by annual application.
3. There are innumerable additional sources of funding for graduate students but must be researched by applicants. A good start is the UGS website at <http://www.fiu.edu/~ugs/financial.html>. The department also maintains webpages for enrolled

and admitted students with additional information. Upon admission, applicants may request and will be given access to these pages.

4. Graduate students are routinely employed as research assistants (RA) on faculty grants. Students in their second or later years are particularly encouraged to seek RA positions to enhance their research skills and career options. The hiring of research assistants is at the discretion of the project's principal investigators. While these arrangements vary, they usually cover the student's tuition and provide a stipend.

Transfer of Credits

Credits may be transferred in accordance with the FIU Graduate Policies and Procedures Manual (consult <http://www.fiu.edu/~ugs/gpm>). While a student may transfer credits into the program, the substitution of transferred credits for specific core and substantive area requirements is not generally allowed. A student seeking to transfer credits must submit a written petition to the Graduate Program Director detailing the courses and hours of credit s/he is seeking to transfer. In addition, students requesting substitution of transferred credits for program requirements must include supporting documentation as part of the petition. The screening and initial decision regarding transferring of credit and substitution will be made by the Graduate Program Director and the Graduate Program Committee. Final approval will be made by the University Graduate School.

Master of Arts in Comparative Sociology

The M.A. in Comparative Sociology is designed to provide students with a strong foundation in social science theory and research skills. While a baccalaureate major in sociology or anthropology is helpful, it is not required for admission to the program. Newly admitted graduate students who have no prior course work in sociology, anthropology, or statistics will be provided with readings to help them bridge their background to the demands of our program.

M.A. Degree Requirements

The 36-credit M.A. program is designed to provide students with a sound background in research skills, grant proposal writing and training in social science theory that will equip them for careers in both the public and private sector. It is also designed to provide the necessary foundation for students desiring to continue on into the Ph.D. program. Full-time students are expected to complete the M.A. degree in two years.

Core Courses

The core curriculum includes six required courses (this is the same core for the Ph.D. degree):

SYA 6018	Sociocultural Theories A	3
SYA 6126	Sociocultural Theories B	3
SYA 6305	Research Methods I	3
SYA 6306	Research Methods II ¹	3
ANG 5496	Social Research and Analysis	3
SYA 6959	Writing Research Proposals	3
Six (6) elective graduate courses at the 5000-level or higher ²		18

¹SYA 6305 is a prerequisite

²Two of these courses may be taken outside the Department. Students may petition the Graduate Program

Director, who, in consultation with the Department Chair, may increase the number of courses that may be taken outside the Department.

Core Competency Exams

Full-time students are expected to complete the following four Core Courses SYA 6018, SYA 6126, SYA 6305 & SYA 6306 by the end of their first year. At the end of that year, they will be given two competency exams in (1) sociocultural theory and (2) research methods. Students must receive a passing grade in each exam to graduate with an M.A. Students who fail the first attempt will be able to re-take the failed exam(s) in the following year. Students who fail any exam more than twice must petition the Graduate Committee in order to re-take the exam again. The Graduate Committee reserves the right to grant or deny such a petition. Students attending the program part-time will be expected to take their Core Competency Exams during the semester in which they complete the theory (SYA 6018, SYA 6126) and/or research methods (SYA 6305 & SYA 6306) sequence(s).

Graduation Requirements

To remain in good standing and to qualify for graduation, students must maintain a graduate GPA of 3.0 or higher. A grade of "B" or higher must be received for all Core Courses. All M.A. course requirements must be met. Student must pass both the theory and research methods Core Competency Exams. All requirements for the M.A. in Comparative Sociology, including the successful passing of the core competency exams, must be completed within six (6) years but full-time students are expected to complete them within two years.

Combined BA in Sociology-Anthropology/ MA in Comparative Sociology

The combined BA/MA program allows qualified full time students to earn both degrees in a shorter time than would otherwise be possible. Entry to the program may affect eligibility for some types of financial aid and students are advised to investigate this issue before applying to the combined BA/MA program.

Students may count up to 12 hours of graduate courses toward both the BA and MA degrees. Hence the two degrees may be earned with a minimum of 144 hours instead of the 154 required if the degrees were pursued separately. Students in this program could choose a thesis or non-thesis MA option.

Students must apply no later than their second junior year semester for admission the following semester. Students entering the program in the fall of their senior year may be able to double count the full 12 semester hours over two semesters. To enter the program the students apply and are accepted by the Department. They will also need to apply to the graduate program when they complete the first year, after receiving the BA degree.

Admission Requirements

Admission to the combined BA/MA program is competitive; meeting the minimum requirements will not guarantee admission. Entry to the program requires prior admission by the Department and approval by the College Dean. Students must also apply and be accepted by the Graduate School in their semester of BA receipt. Graduate School admission requires a separate application. Actual entry to the Graduate School occurs on completion of the

undergraduate degree. At the time of application to the Department the student must have:

- Overall undergraduate GPA of 3.5 or higher in 90 credit hours.
- Minimum GRE (verbal + quantitative) score of 1100.
- Successful completion of Senior Capstone course by the Spring semester of their Junior year.
- Completion of ANT 3034 (Anthropological Theories) and SYA 4010 (Sociological Theories).
- Completion or current registration in SYA 3300 (Research Methods).
- Students are strongly recommended to take an introductory statistics course during their junior year.
- At least 15 hours in undergraduate sociology/anthropology courses in addition to the courses listed above.
- A writing sample.
- Letters of Recommendation from two faculty in the Department of Sociology/Anthropology.
- A 2-4 page statement of purpose describing the student's academic plans and longer-term career goals.

MA Courses taken during the student's senior year:

SYA 6018	Sociocultural Theories A
SYA 6126	Sociocultural Theories B
SYA 6305	Research Methods I
SYA 6306	Research Methods II

Combined BA/MA Program Requirements

Each student must:

- Apply to and be admitted by the Department. In the final undergraduate semester apply and be accepted by the Graduate School.
- Complete all undergraduate major requirements
- Complete twelve graduate hours (6000 level courses listed above) taken while an undergraduate.
- Complete all MA requirements (with either thesis or non-thesis program).

Awarding of Degree

- The BA will be awarded when the BA requirements are completed.
- The MA will be awarded when the BA and MA requirements are completed.

Doctor of Philosophy in Comparative Sociology

The Ph.D. Degree Requirements

The Ph.D. program in Comparative Sociology incorporates and builds upon the M.A. program. The Ph.D. program consists of 75 semester hours or course work including the 36 hours contained in the M.A. degree in Comparative Sociology at FIU. Students are expected to acquire competencies in theory and research methods during the M.A. program. After being admitted into the Ph.D. program, students will pursue their own research interests by taking elective courses and by working with their committee to prepare a doctoral dissertation.

Admissions

Applicants must meet or exceed admissions requirements for the M.A. Students who originally applied to the M.A. program must apply separately to be admitted into the Ph.D. program. A positive evaluation of the student's performance at the M.A. level (hereafter called the M.A. review) will be the most important of the factors considered in evaluating applications to the Ph.D. program. All students, including those who originally applied directly to the Ph.D. program, must undergo a successful M.A. review upon completion of the Masters Program requirements in order to continue in the Comparative Sociology program toward the Ph.D. The Graduate Committee conducts these reviews. The purpose of the M.A. review is to determine the ability of the student to do Ph.D. level work with the department's faculty. Among the information considered during the review are students' performance and grades in courses, passing of competency exams in theory and research methods, and faculty recommendations.

Students who have obtained a Masters degree at another institution may be admitted directly into the Ph.D. program. However, students admitted from other programs must pass the Core Competency Exams in theory and research methods competencies as described above under the M.A. Program.

Course Work

The Ph.D. curriculum in Comparative Sociology consists of a total of 75 credit hours, including six Core Courses, one additional course in advanced theory and one additional course in research methods, 12 electives courses (6 at the M.A. level and 6 at the Ph.D. level), and a minimum of 24 dissertation credits.

Core Courses

The core curriculum includes six required courses (this is the same core as in the M.A. degree):

SYA 6018	Sociocultural Theories A	3
SYA 6126	Sociocultural Theories B	3
SYA 6305	Research Methods I	3
SYA 6306	Research Methods II*	3
ANG 5496	Social Research and Analysis	3
SYA 6959	Writing Research Proposals	3

*SYA 6305 is a prerequisite

Students in the Ph.D. program are required to complete two additional core courses above and beyond the Core Curriculum, one in methods and the other in theory. These additional courses are designed to train students in more advanced theory and methods while meeting individual professional goals. Students may select the courses most consistent with their needs and goals from lists published by the Sociology/Anthropology Department.

Elective Courses

In addition to the 18 hours of electives students complete during the M.A. program, students in the Ph.D. program will take 9 additional hours of elective courses. These additional courses should be selected to prepare the student in substantive academic fields of inquiry that will be important to the student's dissertation. Typically, students will concentrate their electives courses in mastering one of the Department's specialization areas: Environmental Anthropology/Sociology; Migrations and Diasporas; or Comparative Identities and Social Conflicts. At least two but no more than four electives taken while in

the Ph.D. program must be from outside the Department, unless the student petitions the Graduate Program Director for an exception to these rules.

Ph.D. General Examination

After successfully completing the required core and elective course work, and after having passed the Core Competency Exams in theory and research methods (for students who completed the M.A. at FIU this will occur during the M.A. program), each student will prepare for writing the Ph.D. General Examination. This examination will be conducted in accordance with the FIU University Graduate School Policies and Procedures Manual and the Department's General Examination guidelines.

Dissertation Proposal and Defense/Candidacy Exam

After passing the General Examination, students will form a dissertation committee according to the regulations for such committees published on the University Graduate School web page (<http://gradschool.fiu.edu>). In conjunction with this committee, students will prepare a dissertation proposal. Students must defend the dissertation proposal orally before their committee. The proposal defense serves as the candidacy examination for the Comparative Sociology Graduate Program. Upon passing the Dissertation defense, the student is admitted to candidacy status. Only after successfully defending the dissertation proposal may a student register for dissertation credits (SYA 7980). The Ph.D. program requires students to be continuously enrolled in at least 3 credits each semester of Doctoral Dissertation (SYA 7980) from the time they advance to candidacy until they complete the dissertation, including summers. Thirty nine (39) credits must be completed above the M.A. degree.

The Dissertation and Dissertation Defense

After successfully defending the dissertation proposal, students will conduct research and complete their dissertations under the guidance of their dissertation committee. Upon completion of their manuscript and authorization of their research committee, the students will then defend their dissertations before their research committee and the university. University Graduate School regulations governing the dissertation may be found at <http://gradschool.fiu.edu>.

Course Descriptions

Definition of Prefixes

ANG-Anthropology Graduate; ANT-Anthropology; SYA-Sociological Analysis; SYD-Sociology of Demography and Area Studies; SYG-Sociology, General; SYO-Social Organization; SYP-Social Processes.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ANG 5396 Representations of Africa and Africans in Films (3). Analyzes representations of Sub-Saharan Africa and Africans in various cinematic traditions (including documentaries) and examines these representations in socioeconomic and political contexts. Prerequisite: Permission of the instructor.

ANG 5397 Advanced African Diaspora Cultures and Performativity (3). Examines different approaches adopted by African diaspora studies scholars in social and cultural anthropology, and recent theoretical texts and

debates in Performance Studies. Prerequisite: Permission of the instructor.

ANG 5403 Ecological Anthropology (3). Theories of human adaptation, including environmental determinism, possibilism, cultural ecology, materialism, and evolutionary ecology. Credit for both ANG 3403 and ANG 5548 will not be granted. Prerequisites: Graduate standing or permission of the instructor. (SS)

ANG 5496 Social Research and Analysis (3). A graduate overview of the scientific methods used in intercultural studies. Includes the philosophical basis of science, research design, and hypothesis testing using both secondary and original data. Students will conduct a research project in this course. Prerequisites: Graduate status or permission of the instructor. (F)

ANG 5905 Directed Individual Study (1-20). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

ANG 5915 Directed Field Research (1-20). Permission of the instructor required.

ANG 6303 Comparative Feminisms (3). Course examines feminisms and feminist movements in a global context. Taking several geocultural areas as examples, the course analyzes the discourse of cultures, feminisms, and feminist movements. Prerequisites: One graduate level course on gender or permission of the instructor. (S)

ANG 6339 Seminar on Latin America (3). Analysis of Latin American cultures and classes using case studies. Students read a series of anthropological or sociological works and discuss them in a seminar format. Prerequisites: Graduate standing or permission of the instructor. (F)

ANG 6472 Anthropology of Globalization (3). Examination of global economic, political, and cultural processes including the movements of people, commodities, and capital. Study of formation of identities, consumption practices, and gender dynamics.

ANG 6473 Diasporas, Migration, and Globalization (3). Examines a variety of theories of "Diaspora" that have proliferated during the last few decades, as the concept relates to processes of transnational migration and globalization.

ANG 6497 Qualitative Research Methods (3). Qualitative research methods in anthropology and sociology. Includes participant-observation, field work, key informants and in-depth interviewing, visual techniques, ethical issues, and reflexivity. (F)

ANG 6932 Seminar in Human Ecology (3). Analysis of human ecology using case studies. Students read a series of works on human adaptations and discuss them in a seminar format. Prerequisites: ANG 3403 or ANG 6548 or equivalent.

ANT 5318 American Culture and Society (3). Anthropological analysis of the cultures and subcultures of the United States, focusing on the social, ethnic, and regional organizations and their corresponding value and symbolic systems. Prerequisites: Graduate standing or permission of the instructor. (F)

ANT 6302 Gender Identity in Comparative Perspective (3). Comparative examination of cultural and socioeconomic factors defining gender identities and relations in western and non-western societies. Includes selected cross-cultural case studies. Prerequisites: Graduate standing or permission of the instructor. (S)

ANT 6319 The African Diaspora: Anthropological Perspectives (3). History and cultures of Africans outside of Africa, with a special emphasis on the African experience in the Americas. Topics covered include slavery, class, gender, ethnicity, and religion. Prerequisite: Graduate standing.

ANT 6469 Graduate Medical Anthropology (3). Concepts and methods in the field of medical anthropology. Importance of culture in governing the type and frequency of disease in a population, the way people explain and treat disease, and responses to the delivery of modern medicine. Prerequisite: Graduate standing. (S)

ANT 7491 Contemporary Theory in Social Anthropology (3). Graduate seminar examining current theoretical issues in social anthropology. Prerequisites: SYA 6018 and SYA 6126 or permission of the instructor.

SYA 5135 Sociology of Knowledge (3). The study of the theoretical basis of knowledge and the inter-relatedness of knowledge and social factors, particularly as knowledge relates to institutional forms of behavior. (F)

SYA 5357 Graduate GIS and Latin American Societies (3). Introduces geographic information systems (GIS) in the context of Latin American socio-spatial and environmental problems and transformations.

SYA 5909 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

SYA 5941 Directed Field Research (VAR). Permission of the instructor required. (F,S,SS)

SYA 6018 Sociocultural Theories A (3). One of two courses designed to prepare students with a thorough understanding of the key theories and theorists of both sociology and anthropology typically offered in the fall semester. Prerequisites: Graduate standing or permission of the instructor. (F)

SYA 6126 Sociocultural Theories B (3). One of two courses designed to prepare students with a thorough understanding of the key theories and theorists of both sociology and anthropology, typically offered in spring semester. Prerequisites: Graduate standing or permission of the instructor. (S)

SYA 6305 Research Methods I (3). The first in a two-course sequence in applied social science research methods in comparative sociology emphasizes quantitative skills needed to design, implement and analyze data. Prerequisites: Graduate standing or permission of the instructor. (F)

SYA 6306 Research Methods II (3). The second in a two-course sequence on research methods in comparative sociology. Includes the quantitative analysis of sociological research data, and the preparation of written reports and articles. Prerequisites: SYA 6305 and ANG 5496 or equivalent. (S)

SYA 6307 Research Methods III (3). Advanced quantitative analysis of sociological research stressing problems in measurement, data collection and quality, and analysis techniques. Prerequisites: SYA 6306, ANG 5496 or equivalent and STA 3112 or STA 6167 or STA 5236 or permission of the instructor.

SYA 6356 GIS and Social Research (3). Focuses on applications of GIS in social research; includes applying critical perspective on space, place, cartography to GIS social research projects. Prerequisites: GEO 3176 or EVR 4XXX or permission of the instructor.

SYA 6452 Advanced Topics in GIS and Social Research (3). Advanced GIS skills in areas such as geographically weighted regression and use of census data with regard to social research. Prerequisites: Completion of an introductory statistics and either SYA 6356 or introductory GIS course.

SYA 6657 Evaluating Organizational and Program Performance (3). Covers methodologies and conceptual frameworks needed to ascertain organizational effectiveness for the applied purposes of informing decision makers of program modifications needed to achieve desired objectives and goals and providing accountability decision support for social programs operated by governmental and not-for-profit organizations.

SYA 6925 Graduate Colloquium in Comparative Sociology (1). Colloquiums presented by faculty, visiting scholars, and graduate students on topics of current research interest. Repeatable. Prerequisite: Graduate standing. (F,S)

SYA 6941 Internship in Applied Sociology (1-9). Practical application in a supervised setting outside of the classroom of knowledge acquired in the classroom. Hours may vary.

SYA 6943 South Florida Area Study (3). Current issues in South Florida studied through large-scale survey research conducted by class members. Provides experience in research techniques and the development and testing of theory. Prerequisites: SYD 6625 and SYA 6305. (S)

SYA 6959 Writing Research Proposals (3). Development of skills in writing research proposals. Prerequisite: Three completed semesters of graduate work.

SYA 6975 Thesis (1-6). Registration for students working on the thesis for the M.A. in Comparative Sociology or the M.A. in International Studies. Prerequisites: All other course work for the M.A. in Comparative Sociology or International Studies. (F,S,SS)

SYA 7651 Foundations of Social Theory Construction (3). Seminar exams assumptions of social theory. Topics include objectivity in the social sciences, social science concepts and explanations, reductionism, and the bases of social theory construction. (S)

SYA 7930 Special Topic in Comparative Sociological Research (3). A detailed exploration into particular research methodologies, approaches and techniques relevant to Comparative Sociology. Topic will vary depending upon the instructor. Course may be repeated.

Prerequisites: SYA 6305 and SYA 6306 or permission of the instructor.

SYA 7940 Practicum Supervised Teaching (1-9). Practical application in a supervised setting of knowledge acquired in the classroom. Hours may vary. (F,S,SS)

SYA 7941 Field Research (1-9). Research projects or certain aspects of research in a field situation carried out by one or more students under the direction of a faculty member. Topics vary. Usually selected on an individual basis. Hours may vary. (F,S,SS)

SYA 7967 Preparation: Preliminary Doctoral Exam (1-9). Preparation for the preliminary doctoral exam under the direction of a faculty member. Hours may vary. (F,S)

SYA 7979 Advanced Research (1-9). Research projects or certain aspects of research carried out by one or more students under the direction of a faculty member. Topics vary; selected on an individual basis. Hours may vary. (F,S,SS)

SYA 7980 Ph.D. Dissertation (1-12). Hours taken by students to work on the dissertation under the supervision of a major professor and the doctoral committee. Hours may vary. Prerequisites: Permission of Major Professor and Doctoral Candidacy. (F,S)

SYD 5045 Population and Society (3). The study of the processes that determine the size and composition of human populations. Emphasis on demographic transition theory and the antecedents and consequences of differential growth rates throughout the world. Prerequisites: Graduate standing or permission of the instructor.

SYD 5607 Advanced World Jewish Communities (3). Overview of Jewish communities throughout the world. Analyzes their origins, migrations, demographic and social characteristics. Covers Ashkenazi, Sephardi, and Oriental communities. Prerequisite: Graduate Standing.

SYD 6236 International Migration and Refugees (3). Comparative analysis of the causes, consequences, and policies concerning population movements across national borders. Includes review of various theories of labor migration. Students will conduct research on a migration or refugee topic. Prerequisites: Graduate standing or permission of the instructor. (F)

SYD 6325 Seminar in the Comparative Sociology of Gender (3). The examination of women's and men's roles, statuses, and life opportunities from a historical and comparative perspective. Current theoretical developments in the study of gender are emphasized. Prerequisites: Graduate standing or permission of the instructor. (S)

SYD 6427 Seminar in Comparative Urban Issues (3). Current theoretical developments in the study of urbanism, including the evolution and growth of cities, spatial and social structures, migration, and the critical problems of social life in cities. Prerequisites: Graduate standing or permission of the instructor. (F)

SYD 6615 Seminar in Comparative Analysis of Selected Regions (3). Comparative social analysis using studies from two or more world regions. Students read a series of works on issues such as bureaucracy,

modernization, and development, and discuss them in a seminar format. Prerequisites: Graduate standing or permission of the instructor. (S)

SYD 6616 Comparative Stratification Seminar (3). Comparative analysis of causes and consequences of contemporary inequality in an international context. Emphasizes theoretical and methodological approaches to comparative case studies. Prerequisites: Graduate standing or permission of the instructor. (S)

SYD 6625 South Florida Socio-cultural Systems (3). The sociological and anthropological analysis of South Florida. Presents tools for regional study including demography, cultural ecology, and ethnic group-centered symbolic systems. Prerequisites: Graduate standing or permission of the instructor. (F)

SYD 6655 Seminar on Social Change in Asia (3). An examination of social change in contemporary Asia, including the relationships between states, the changing political economies, and the role of social movements and cultural institutions in change. Prerequisites: Graduate standing or permission of the instructor.

SYD 6705 Comparative Analysis of Ethnicity and Race (3). Consideration of major theories of ethnicity and race and analysis of selected ethnic groups in various world regions. Includes the study of race and ethnic issues in Miami and the South Florida region. (S)

SYD 6715 Comparative Adolescent Cultures (3). Examines the adolescent cultures of different ethnic, class, and national groups from an anthropological and sociological perspective. The primary focus is on how adolescents construct their own social groups and what meaning they attribute to these constructions. Prerequisite: Graduate standing.

SYD 6816 Advanced Sociological Theories of Gender (3). Examines sociological theory as it deals with gender from a feminist perspective. Prerequisite: Graduate standing. (S)

SYD 6901 Special Topics in Sociology (3). An examination of specific themes and topics in sociology. The theme may vary from semester to semester. With a change in content, the course may be repeated. Can be taken for credit no more than twice with any given instructor. Prerequisites: SYA 6018 and SYA 6126 or permission of the instructor.

SYD 7903 Directed Readings (1-9). Readings under the direction of a faculty member focusing on one of the tracks in the Ph.D. program. Hours may vary. (F,S,SS)

SYG 6932 Special Topics in Disaster Studies (3). Case studies of major disasters used to explore topics such as impact of gender, class, ethnicity, and age on vulnerability, response, and outcome; effects of larger political and economic systems; and relationship to social change. May be repeated with change of topic.

SYO 6135 Families and Social Change (3). Comparative study of the family as an institution adapting to social and economic conditions. Cultural variation in marriage, parenthood and gender roles. Historical influences on the pluralistic American family. Credit for both SYO 4130 and SYO 6135 will not be granted. Prerequisites: Graduate standing or permission of the instructor. (F)

SYO 6306 Political Sociology (3). Examines social relations of power in groups, organizations, and national and global structures; also patterns of state formation, state-society relations, and sources of political change. Prerequisite: Graduate standing. (S)

SYO 6405 Graduate Medical Sociology (3). Examination of the social significance of health, illness, and medicine in the U.S. as compared to other societies. Includes disease type and distribution as well as a critique of health care professions, organizations, and policies. Prerequisite: Graduate standing. (F)

SYO 6415 Sociology of Mental Health (3). Examination of the social and social psychological processes that influence mental health and illness. Analysis of the social consequences of mental illness including issues associated with social mobility and stigma. Prerequisite: Graduate standing.

SYP 5447 Sociology of International Development (3). To introduce the basic concepts and questions of the field as applied to the international arena. To illustrate the common areas of social science analysis in dealing with questions of international development. (S)

SYP 6306 Comparative Social Movements (3). Comparative analysis of social movements and social change, including peasant movements, environmentalism, civil rights, feminism, and nationalism. Competing theories of social movements are examined. Prerequisites: Graduate standing or permission of the instructor. (F)

SYP 6739 Seminar: Ethnic Minority Aging in U.S. (3). Sociological perspective on aging among racial/ethnic minority groups in U.S. Includes social, demographic, and cultural influences on the status of minority elders in the areas of family and community.

SYD 6907 Seminar in Comparative Social Change (3). The cross-cultural and comparative analysis of contemporary social change, including processes of social action such as terrorism, reformism, revolution, and the use of electoral systems and democratic processes. Prerequisites: Graduate standing or permission of the instructor. (F)

Statistics

Sneh Gulati, *Professor and Chairperson*

Dongmei An, *Instructor*

Leonid Bekker, *Instructor*

Zhenmin Chen, *Associate Professor and Graduate Program Director*

Florence George, *Assistant Professor*

Gauri L. Ghai, *Associate Professor and Advisor*

Ramon Gomez, *Instructor*

Golam Kibria, *Associate Professor*

Dane McGuckian, *Instructor*

Jie Mi, *Professor*

Laura Reisert, *Instructor*

Samuel S. Shapiro, *Professor Emeritus*

Dinesh Sharma, *Assistant Professor*

Hassan Zahedi-Jasbi, *Associate Professor*

Noel Zuniga, *Lecturer*

Master of Science in Statistics

The Master of Science in Statistics at Florida International University is primarily an applied statistics program. It offers a balance of statistical theory, statistical methodology, and optionally, an area application concentration. The program offers a thesis option and a non-thesis option. Regardless of the concentration or thesis option, the program requires a total of 36 credit-hours as follows: six core courses (18 hours), four elective courses or an area of concentration (12 hours), and either a thesis (6 hours) or two additional elective courses (6 hours) and a comprehensive examination.

Admission Requirements

To be admitted into the program, applicants must meet the university's graduate admission requirements (see Office of Graduate Admissions in this catalog). If an applicant has an earned graduate degree from an accredited US institution, the Department may waive the GRE requirement. All the applicants must also meet the following departmental requirements:

1. Bachelor's degree in statistics, mathematics, or in a related field from an accredited university or college. A bachelor's degree in some other discipline is also acceptable provided the applicant has a suitable mathematics background.
2. A 3.0 or higher (on a 4-point scale) GPA in mathematics and statistics courses.
3. Three letters of recommendation from persons familiar with the applicant's academic qualifications.
4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
5. Approval of the departmental graduate committee.

Core Courses: (18)

STA 5206	Design of Experiments
STA 6244	Data Analysis I
STA 6246	Linear Models
STA 6247	Data Analysis II
STA 6326	Mathematical Statistics I
STA 6327	Mathematical Statistics II

Elective Courses: (12)

A student may select four courses from Lists A, B, and C or may opt for an area of concentration (see below).

Concentration Area: (12)

Students interested in a concentration in Biostatistics/Environmetrics must select two courses from List A and two track-related electives. At least one of these electives must be from outside the department.

Students interested in a concentration in Reliability Analysis/Quality Control must select two courses from List B and two track-related electives. At least one of these electives must be from outside the department.

All electives must be approved by the Graduate Program Director.

List A: Biostatistics/Environmetrics

STA 5826	Stochastic Processes
STA 6176	Biostatistics
STA 6678	Environmental Statistics

List B: Reliability Analysis/Quality Control

STA 5666	Advanced Quality Control
STA 5676	Reliability Engineering
STA 5826	Stochastic Processes

List C: Elective Statistics Courses

STA 5207	Topics in Design of Experiments
STA 5236	Regression Analysis
STA 5507	Nonparametric Methods
STA 5906	Independent Study
STA 6505	Analysis of Categorical Data
STA 6807	Queueing and Statistical Models
STA 6940	Supervised Statistical Consulting
STA 7707	Multivariate Methods I
STA 7708	Multivariate Methods II

Elective Courses from Outside of the Department:

Elective courses from outside of the department must be approved by the Graduate Program Director.

Thesis Option: (6)

Students opting to write a thesis must enroll in STA 6971, Thesis Research and STA 6972, Master's Thesis (6 credit-hours total).

Non-Thesis Option: (6)

Students who opt not to write a thesis must take two additional elective courses selected from List C or from outside of the department. These courses must be approved by the Graduate Program Director.

Graduation Requirements

1. Grade and GPA requirements: a) cumulative GPA of 3.0 or higher in all courses, b) a grade of 'B' or higher in each core course, and c) a grade of 'C' or higher in each concentration or elective course.
2. A candidate who opts to write a thesis must successfully defend the thesis orally and have the written thesis approved by his/her thesis committee.
3. A candidate who chooses the non-thesis option must take and pass a comprehensive examination.

Students must follow all regulations of the University Graduate School.

Combined Bachelor's/Master's Degree in Statistics

Admission Requirements

- Current enrollment in the first semester of the senior year Bachelor's Degree Program in Statistics at FIU
- Completed or enrolled in at least 90 undergraduate credits hours
- Current GPA of 3.25 or higher
- GRE combined score of at least 1000 (quantitative and verbal)

Courses and other General Requirements

Students enrolled in the program may count up to 9 hours as credits for both the undergraduate and graduate degree programs. These courses must be taken at least the 5000 level and can be chosen from the following list (amongst others):

STA 5206	Design of Experiments I
STA 5236	Regression Analysis
STA 5507	Nonparametric Methods
STA 5666	Advanced Quality Control
STA 5207	Topics in Design of Experiments
STA 7707	Multivariate Methods I
STA 7708	Multivariate Methods II

Students who count cross listed courses towards the degree will not get credit for both the 4000 level and the 5000 level course. In fact, the students will not be allowed to take both the courses.

In addition, as part of earning the MS degree the students are required to take the following core courses:

STA 6244	Data Analysis I
STA 6247	Data Analysis II
STA 6326	Mathematical Statistics I
STA 6327	Mathematical Statistics II

The BS/MS program is designed to be a continuous program; however, upon completion of all the requirements of the undergraduate degree, students will receive the BS degree. Students in this program have up to one year after receipt of the bachelor's degree to complete the MS degree. Students who fail to meet the post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student but will not be able to use the 9 credits for both the bachelor's and master's degree.

Admission into the combined program does not automatically qualify the students for admission into the MS degree program. To enroll in the MS degree program, the students must apply (in their senior year) to the graduate school and meet all graduate admission requirements.

Students enrolled in the program must maintain an overall GPA of 3.0 or higher and must get a minimum grade of "B" in all the core courses. Upon completion of the entire 4+1 program, students must have accumulated a minimum of 30 hours of credits at the graduate (5000+) level. In addition, to get the MS degree, the students will also be required to take a comprehensive examination or do a thesis. Students opting for the comprehensive exam will be required to take an additional 6 hours of credits at the graduate (5000+) level. All students enrolled in the program will be expected to attend the departmental seminars.

Course Descriptions

Definition of Prefixes

MAP - Mathematics/Applied. STA - Statistics.

MAP 5117 Mathematical and Statistical Modeling (3). Study of ecological, probabilistic, and various statistical models. Prerequisites: MAC 2313, COP 2210, MAS 3105; and STA 3033 or STA 3164 or STA 4322.

STA 5065L SAS Data Analysis Lab (1). Entering data, descriptive statistics, graphing data, crosstabulations, t-tests, correlation and regression, and analysis of variance. Prerequisites: A statistics course and graduate standing or permission of the instructor.

STA 5105L SPSS Data Analysis Lab (1). Topics include: Entering data from various sources, data checking, descriptive statistics, graphing data, crosstabulations, t-tests, correlation and regression, ANOVA, and reliability. Prerequisites: A statistics course or concurrent enrollment in a statistics course, and graduate standing or permission of the instructor.

STA 5106 Intermediate Statistics I (3). Power, measures of assoc., measurement, ANOVA: one-way and factorial, between and within subjects expected mean squares, planned comparisons, apriori contrasts, fixed, random, mixed models. This course may be of particular interest to behavioral sciences. Prerequisites: STA 3111 or STA 3123 or STA 3033; and graduate standing. (F)

STA 5107 Intermediate Statistics II (3). Correlation and regression both simple and multiple, general linear model, analysis of covariance, analysis of nominal data, analysis of categorical data. This course may be of particular interest to behavioral sciences. Prerequisite: Permission of the instructor. (S)

STA 5126/PSY 5206 Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3112 or STA 3123 or STA 3163 or STA 4322 or equivalent.

STA 5206 Design of Experiments I (3). Design and analysis of completely randomized block, Latin square factorial, nested experiments. Multiple comparisons. Credit for only one of three STA 4202, STA 5126, and STA 5206 courses will be granted. Prerequisites: STA 3033 or STA 3164 or STA 4322 or (STA 3163 and STA 4321).

STA 5207 Topics in Design of Experiments (3). This applied course in design of experiments covers topics such as split-plot design, confounding, fractional replication, incomplete block designs, and response surface designs. Prerequisite: STA 5206.

STA 5236 Regression Analysis (3). Simple, multiple and polynomial regression, analysis of residuals, model building and other related topics. Credit for both STA 4234 and STA 5236 will not be granted. Prerequisites: STA 3112 or STA 3123 or STA 3164, or STA 6167.

STA 5446-STA 5447 Probability Theory I and II (3-3). This course is designed to acquaint the student with the basic fundamentals of probability theory. It reviews the basic foundations of probability theory, covering such topics as discrete probability spaces, random walk, Markov Chains (transition matrix and ergodic properties), strong

laws of probability, convergence theorems, and law of iterated logarithm. Prerequisite: MAC 2313.

STA 5507 Nonparametric Methods (3). Distribution-free tests: sign, Mann-Whitney U, Wilcoxon signed rank, Kruskal-Wallis, Friedman, etc. Rank correlation, contingency tables and other related topics. Credit for both STA 4502 and STA 5507 will not be granted. Prerequisite: A course in statistics.

STA 5666 Advanced Statistical Quality Control (3). Review of statistical methods useful in quality improvement. Statistical process control. Taguchi's and Deming's philosophies. Control charts. Process capability analysis. Acceptance sampling plans. Prerequisites: STA 3033 or STA 3163 or STA 4321 or equivalent.

STA 5676 Reliability Engineering (3). The course material is designed to give the student a basic understanding of the statistical and mathematical techniques which are used in engineering reliability analysis. A review will be made of the basic fundamental statistical techniques required. Subjects covered include: distributions used in reliability (exponential, binomial, extreme value, etc.); tests of hypotheses of failure rates; prediction of component reliability; system reliability prediction; and reliability apportionment. Prerequisite: STA 4322.

STA 5800 Stochastic Processes for Engineers (3). Probability and conditional probability distributions of a random variable, bivariate probability distributions, multiple random variables, stationary processes, Poisson and normal processes. Prerequisites: MAC 2313, MAP 2302, STA 3033.

STA 5826 Stochastic Processes (3). This course is intended to provide the student with the basic concepts of stochastic processes, and the use of such techniques in the analysis of systems. Subjects include: Markov Processes, queuing theory, renewal processes, birth and death processes, Poisson and Normal processes. Applications to system reliability analysis, behavioral science, and natural sciences will be stressed. Prerequisite: STA 5447.

STA 5906 Independent Study (1-6). Individual conferences, assigned reading, and reports on independent investigation.

STA 6166 - STA 6167 Statistical Methods in Research I and II (3-3). For non-mathematical sciences graduate students. A non-calculus exposition of methods and applications of statistical techniques for the analysis of data. Statistical packages will be used. Prerequisite: Graduate standing. (F,S)

STA 6176 Biostatistics (3). Statistical analysis of data encountered in medical sciences. Analysis of count data, Kaplan-Meier survival analysis, Cox proportional hazards model, analysis of covariance, logistic regression, etc. Prerequisites: STA 3163 or equivalent.

STA 6196 Statistics for Environmental Sciences (3). Environmental Quality Data, Binomial, Poisson, Normal, Lognormal, and Extreme value distributions. Prediction and Tolerance Intervals, Hypothesis Testing of Environmental Quality Data, Risk Assessment, Regression, Spatial Statistics. Prerequisites: STA 2122, STA 3145, STA 6166 or the equivalent.

STA 6244 Data Analysis I (3). Exploratory data analysis; testing of distributional assumptions; Chi-square tests, tests for means, variances, and proportions. Prerequisites: STA 3033, STA 4322, or STA 6327.

STA 6246 Linear Models (3). Introduction to the theory of linear models. Distribution of linear and quadratic functions of normal vectors. Development of inferential procedures for simple and other more complex linear models. Prerequisites: MAS 3105, STA 6247, and STA 6327.

STA 6247 Data Analysis II (3). Analysis of variance, regression analysis. Analysis of covariance, quality control, correlation, empirical distributions. Prerequisites: MAS 3105 and STA 6244.

STA 6326 Mathematical Statistics I (3). An introduction to the theories underlying statistical analysis. Basic concepts of probability theory, combinatorial analysis, random variables, and expectation. Prerequisite: MAC 2313.

STA 6327 Mathematical Statistics II (3). Estimation of parameters, tests of hypotheses, regression, non-parametric methods, analysis of variance, and multivariate concepts. Prerequisite: STA 6326.

STA 6505 Analysis of Categorical Data (3). Analysis of contingency tables, measures of association, logit and loglinear models. Prerequisites: STA 5107 or STA 5236 or STA 6167.

STA 6678 Environmental Statistics (3). Review of probability theory and probability processes. Bernoulli, Poisson, and normal processes. Dilution of pollutants. Lognormal processes. Prerequisites: MAC 2312 and STA 3164.

STA 6746 Multivariate Statistical Analysis (3). Multivariate normal, Wishart and Hotelling's distributions. Statistical inferences based on one or two samples. MANOVA. Principal component analysis, factor analysis, and cluster analysis. Prerequisites: STA 3112 or STA 3123 or STA 6167.

STA 6807 Queuing and Statistical Models (3). Review of probability concepts, basic probability distributions, Poisson process, queuing models, statistical models. Prerequisites: Permission of the instructor, MAC 2312 and either STA 3033 or STA 4321.

STA 6940 Supervised Statistical Consulting (3). Formulation of statistical problems from client information, consulting session management, interpersonal aspects of consulting, problem solving techniques. Prerequisites: Permission of the instructor, STA 4102, STA 6247, and STA 6327.

STA 6971 Thesis Research (1-6). Supervised research on theoretical or applied statistics leading to a thesis. Repeatable. Prerequisite: Permission of student's program committee.

STA 6972 Master's Thesis (1-6). Thesis completion and submission in partial fulfillment of Master's degree requirements. Prerequisite: Permission of student's program committee.

STA 7707 Multivariate Methods I (3). Multivariate normal, Wishart and Hotelling's distributions. Inferences for one and two mean vectors. Profile analysis. One- and two-way

MANOVA. Multivariate multiple regression. Prerequisites: STA 3112 or STA 3123. (F)

STA 7708 Multivariate Methods II (3). Principal components analysis. Factor analysis. Canonical correlation analysis. Discriminant analysis. Cluster analysis. Multidimensional scaling. Prerequisite: STA 7707. (S)

Certificate Programs

African-New World Studies Graduate Certificate Program

Akin Ogundiran, *Director, African-New World Studies & Associate Professor, History*

Faculty:

Heather Andrade, *Assistant Professor, English*

Pascale Becel, *Chair and Associate Professor, Modern Languages*

Jean-Robert Cadely, *Associate Professor, Modern Languages & African-New World Studies*

John Clark, *Chair & Associate Professor, International Relations*

Carole Boyce Davies, *Professor of English & African-New World Studies*

Mohamed Farouk, *Associate Professor, College of Education*

Steve Fjellman, *Professor, Sociology & Anthropology*

Veronique Helenon, *Assistant Professor, History & African-New World Studies*

Tometro Hopkins, *Associate Professor, English*

Marcia Magnus, *Associate Professor, Dietetics & Nutrition*

Andrea Mantell-Seidel, *Associate Professor, Theater & Dance*

Roderick Paul Neumann, *Professor, International Relations*

Valerie Patterson, *Assistant Professor, College of Social Work, Justice, and Public Affairs*

Jean Rahier, *Associate Professor, Sociology/Anthropology & African-New World Studies*

Vicky Silveira, *Head, Special Collection, Library*

Augusto Soledade, *Assistant Professor, Dance*

Linda Spears-Bunton, *Associate Professor, College of Education*

Dionne Stephens, *Associate Chair & Assistant Professor, Psychology*

Alex Stepick III, *Professor, Sociology & Anthropology*

Juan Torres-Pou, *Assistant Professor, Modern Languages*

Albert Wuaku, *Certificate Coordinator & Assistant, Religious Studies*

Donna Weir-Soley, *Assistant Professor, English*

The African-New World Studies Graduate Certificate Program seeks to provide graduate-level instruction in the diverse field of Africana Studies. Specifically, the African-New World Studies Certificate program seeks to:

1. Provide an excellent university education, while both challenging and stimulating students/participants to contribute to the development of their communities;
2. Generate new knowledge and research opportunities within the field of Africana Studies.
3. Serve the university's external community with special programming to meet educational needs;
4. Foster greater understanding of the global nature of African peoples.

General Requirements (18)

Required Course:

AFA 5002 African-New World Studies Theory and Methods
(Offered every fall semester)

The 15 remaining credit hours may be drawn from a variety of courses. The following list represents examples of elective courses appropriate for the completion of the certificate program. Students should consult with advisors since new courses are frequently added, and special topic courses sometimes concern the African Diaspora.

AFA 6325	Pedagogy in the African Diaspora: Literacy, Culture, and Gender	3
AFH 5905	Readings in African History	3
AFH 5935	Topics in African History	3
ANG 5397	Advanced African Diaspora Cultures	3
ANG 5396	Representations of Africa and Africans in Films	3
ANT 6319	The African Diaspora: Anthropological Perspectives	3
CPO 6206	Seminar in African Politics	3
FRE 5508	La Francophonie	3
HAI 5235	Haitian Creole Seminar	3
INR 5255	Seminar in African Development	3
INR 6936	Seminar in Inter-American Politics	3
LIT 5359	African Diaspora Women Writers	3
LIT 5358	Black Literature and Literacy/Cultural Theory	3
MUH 5025	History of Popular Music in the United States	3
MUH 5067	Music of the Caribbean	3
REL 5122	African-American Religion	3
REL 5372	African Spirituality	3
REL 5384	Rasta, Vodou, Santeria	3
REL 5488	Theology and Liberation Movements	3
SPW 6368	19 th Century Spanish-Caribbean	3
SYD 6705	Comparative Analysis of Ethnicity and Race	3
SYP 6734	Seminar: Ethnic Minority Aging in U.S.	3
WOH 5237	The African Diaspora Since the End Of the Slave Trade	3
WOH 5236	The Transatlantic Slave Trade and the Making of the African Diaspora, 1441-1807	3

Graduate Certificate in Asian Globalization

Steven Heine, *Director, Institute for Asian Studies*

Coordinating Committee

Ana Maria Bidegain, *Religious Studies*

Paul Kowert, *International Relations*

Mohiaddin Mesbahi, *International Relations*

John Stack, *Political Science*

This certificate program offers an 18-credit sequence of courses that provides graduate students with an in-depth learning experience of an increasingly important region in comparison with another world region such as Africa, Europe, Latin America or the Middle East. The program requires students to take 12 credits of courses in Asian studies in addition to 6 credits of courses in another specific region. This program allows students the opportunity to study thematic issues related to Asia such as migration, identity, trade, education, technology, environment, and international affairs from a multidisciplinary, multiregional approach.

Required Courses (3)

ASN 5315 Survey of Modern Asia

Electives in Asian Studies (9)

See sample listing of courses below

Electives in Globalization (6)

See sample listing of courses below. For additional courses in other world regions inquire with the Department.

Prescribed Courses and Other Requirements

All students are to choose from the courses listed below with the approval of the Director with a grade of "B" or better. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

Sample Courses in Asian Studies and Comparative Studies

ASH 5446	Pre-modern Japan
ASH 5905	Readings in Asian History
ASN 5130	Zen and the Arts
ASN 5131	Zen and the Arts II
ASN 6930	Seminar in Asian Studies
CPO 5091	Seminar in Comparative Politics
ECO 5709	The World Economy
ECO 5735	Multinational Corporations
ECP 5707	International Economic Problems and Policy
EVR 5350	International Organizations and Environmental Politics
HIS 5289	Comparative History
IDS 6938	Great Ideas Seminar: Human Nature
INR 5544	The New Asian Century
INR 5086	Islam in International Relations
INR 5315	Foreign Policy Analysis
INR 6205	World Politics
INR 6706	Political Economy of International Relations
INR 6017	Comparative Approaches to Area Studies and Global Issues
MUH 5057	Music of the World
MUH 5575	Survey of Asian Music
REL 5346	Seminar on Buddhism
REL 5352	Religions of East Asia
REL 6395	Seminar in Asian Religions
SYD 6655	Seminar on Social Change in Asia

Sample of Courses in Globalization**African Studies**

AFH 5905	Readings in African History
CPO 6206	Seminar in African Politics
INR 5255	Seminar in African Development
REL 5272	African Spirituality
ANT 6319	African Diaspora: Anthropological Perspectives

European Studies

ARH 5663	Graduate Art in Spain and Her Colonies
ENG 5220	Major British Literary Figures
ENL 5505	Periods in English Literature
EUH 5905	Readings in European History
EUH 5935	Topics in European History

Latin American Studies

ARH 5671	Seminar in 20th Century Latin American Art
LAH 5905	Readings in Latin American History
LAS 6003	Survey of Latin America
LAS 6017	Intelligence Issues in Latin America

INR 6936	Seminar in Inter-American Politics
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Middle Eastern Studies

HIS 5930	Special Topics
CPO 6407	Seminar in Politics of the Middle East
INR 5086	Islam in International Relations
INR 5275	International Relation of the Middle East
INR 6338	Seminar in Strategic Studies

In addition to the courses listed above, relevant special topics, independent study, study aboard credits, and area studies or comparative studies may also be applied.

Language

Language proficiency as appropriate for student's area specialization.

Graduate Certificate in Asian Studies

Steven Heine, *Director, Institute for Asian Studies*

Coordinating Committee

Mahadev Bhat, *Environmental Studies and Economics*

Bongkil Chung, *Philosophy*

Joel Heinen, *Environmental Studies*

Nathan Katz, *Religious Studies*

Paul Kowert, *International Relations*

Laura Nenzi, *History*

The objective is to provide interdisciplinary graduate instruction in international/global studies that requires specialization in Asia or a sub-region such as East, South, Southeast, or Central Asia. The program offers two concentrations, language or non-language. The language concentration requires one year of an Asian language and 15 credits, and is geared towards students whose studies emphasize a traditional area studies approach to culture and society. The non-language concentration requires 18 credits and targets students who are interested in examining Asia in a global context.

A. Language Concentration Requirements: (15)**Core Course in Asia-Comparative Studies (3)**

A course in comparative or global studies, such as:

ASH 5446	Pre-Modern Japan
ASH 5905	Readings in Asian History
CPO 5091	Seminar in Comparative Politics
ECO 5709	The World Economy
HIS 5289	Comparative History
INR 5544	The New Asian Century
INR 6017	Comparative Approaches to Area Studies and Global Issues

MUH 5057	Music of the World
REL 6935	Seminar in Sacred Sources
SYD 5045	Population and Society

Regional Studies Courses (9)

Courses in studies of Asia or a sub region. The courses can be taken in any relevant discipline, but must come from at least two different departments of disciplines.

Directed Research (3)

Supervision of an intensive research paper, fieldwork studies, or a comparable in-depth specialized project in studies of Asia or sub-region.

Language Requirements (credits cannot be applied towards the certificate)

One year of study, or equivalent, in a language appropriate to the studies of Asia or a sub-region.

B. Non-Language Concentration (18)**Core Course in Asia-Comparative Studies (3)**

A course in comparative or global studies, such as:

CPO 5091	Seminar in Comparative Politics
ECO 5709	The World Economy
HIS 5289	Comparative History
INR 6017	Comparative Approaches to Area Studies and Global Issues
MUH 5057	Music of the World
REL 6935	Seminar in Sacred Sources
SYD 5045	Population and Society

Regional Studies Courses (12)

Courses in studies of Asia or a sub region. The courses may be taken in any relevant discipline, but must come from at least two different departments of disciplines.

Directed Research (3)

Supervision of an intensive research paper, fieldwork studies, or a comparable in-depth specialized project in studies of Asia or sub-region.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: www.fiu.edu/~asian.

Graduate Certificate in Environmental Studies

Ray Scattone, Director, Environmental Studies

Coordinating Committee

Mahadev Bhat, Economics and Environmental Studies

Suzanne Koptur, Biology

Rod Neumann, International Relations

Laura Ogden, Sociology/Anthropology

This graduate certificate is an interdisciplinary program focused on various environmental issues that is analogous to the undergraduate Certificate in Environmental Studies. It is aimed primarily at graduate students in International Relations, Economics, and Sociology/Anthropology as well as those doing an environmental concentration or track in graduate programs in Tourism, Liberal Studies, Journalism, Education (particularly Parks and Recreation Management), and Latin American Studies. The Certificate Program provides an analytic basis for understanding local, regional and global environmental problems and their solutions.

The Graduate Certificate in Environmental Studies requires 15 graduate credit hours as follows:

Two Core Courses (6)

EVR 5005	Environmental Science and Sustainability
REL 5183	Ethics and Environment

Three Environmental Electives from the following (9):

ANG 5403	Ecological Anthropology
SYD 5045	Population and Society
INR 5352	Environment and Security
EVR 5061	South Florida Ecology: Field Studies
EVR 5320	Environmental Resource Management
EVR 5355	Environmental Resource Policy
EVR 5360	Protected Area Management

EVR 5300	Topics in Urban Ecology
EVR 5406	U.S. Endangered Species Management
EVR 5067	Tropical Forest Conservation/Utilization
EVR 5330	Tropical Ecosystem Management
GIS 5050	Environmental GIS
EVR 5935	Special Topics in Environmental Studies
EVR 5907	Research and Independent Study
LEI 5605	Philosophical and Social Basis of Parks and Recreation
HFT 6706	Environmental Management for Tourism
EDF 6766	Education, Environment and Sustainable Future
SYD 6901	Migration and Environment
INR 6056	Environment and Development
LAA 6551	Sustainable Landscapes
EVR 6322	Methods of Sustainable Resource Management
ECP 6305	Advanced Environmental Economics

Graduate Certificate in Geographic Information Systems

Zhaohui Jennifer Fu, Head, Library GIS-RS Center

Coordinating Committee

Jennifer Gebelein, International Relations

Hugh Gladwin, Sociology/Anthropology

Assefa Melesse, Environmental Studies

Tom Philippi, Biology

Dean Whitman, Earth Sciences

Keqi Zhang, Environmental Studies

Fang Zhao, Civil and Environmental Engineering

The Graduate Certificate in Geographic Information Systems provides students with an interdisciplinary background in GIS. The program consists primarily of graduate level courses in Geographic Information Systems with electives in related disciplines such as Biology, Earth Sciences, Civil Engineering, Environmental Studies, International Relations, Landscape Architecture, Public Health, and Urban Planning.

A Geographic Information System (GIS) is a set of computer hardware and software used to organize, manipulate, and analyze maps and spatial data. GIS is a rapidly developing technology that can be applied to many areas of the natural and social sciences. Applications areas include: Architecture, Engineering, Earth and Environmental Sciences, Economics, Sociology, Political Science, Public Health, and Urban Planning.

There is an increasing demand for GIS specialists in the job market as a result of advancements in information technology, and the development of spatial/geographic database management programs. Currently, many faculty at FIU in a variety of disciplines are actively engaged in teaching and research in GIS.

For more information on the Certificate in Geographic Information Systems, contact Zhaohui Jennifer Fu, the head of the FIU GIS-RS Center, GL 275D or call (305) 348-3138 or email: fuijen@fiu.edu, or visit: <http://gislab.fiu.edu>.

Prescribed Courses and Other Requirements

The certificate program will require 15 graduate level credits (5 courses) distributed as follows:

Required Courses: (One course from each of the following subjects)

1. Introduction to GIS

GIS 5050/ EVR 4934	Environmental GIS	
CGN 5320	GIS Applications for Civil and Environmental Engineering	
GIS 5935	Topics in GIS	
PAD 6717	GIS Applications for Urban Management	

or equivalent

2. Intermediate/Advanced GIS

GLY 5758	GIS and Spatial Analysis for Earth Sciences	
EVR 5044	Advanced GIS and Environmental Data Analysis	
CGN 6325	Advanced GIS for Civil and Environmental Engineering	
SYA 6356	GIS and Social Research	

or equivalent

3. Remote Sensing

GLY 5756	Applied Remote Sensing in Earth Sciences	
GIS 5038	Remote Sensing	

or equivalent

Electives: (6 credits out of the following)

EVR 6329	Watershed Analysis and Management	
EVR 6056	GIS Water Resources	
PCB 5328	Spatial & Landscape Ecology	
BSC 5935	Topics in Biology	

or

Additional intermediate/advanced GIS courses under required courses, category 2

or

Future elective courses approved by the GIS coordinating committee. Proposed future courses include:

- Design and Programming of GIS Applications
- Advanced Remote Sensing and Digital Image Processing
- Internet and Distributed DIS

Joint Certificate in Integrated Marketing Communications: Latin American Certification

The Joint Graduate Certificate in Integrated Marketing Communications: Latin American Certification is an 18-hour program with two required courses each from ICAP and International Relations, plus several electives from both areas. The objective of this graduate level certificate program is to prepare working communications professionals with the skills necessary to develop and implement communications programs in Latin America. It is also appropriate to provide international relations professionals who have gained communications responsibilities with a broad overview of the basic concepts and tasks of mass communications.

Required Courses – ICAP Program

PUR 6806	Integrated Communication: Account Planning (Prerequisite: Permission of the instructor)	3
PUR 6607	Advertising and Public Relations Management (Prerequisite: PUR 6806)	3

Elective Courses – ICAP Program

MMC 6402	Theories of Mass Communication (Prerequisite: Permission of the instructor)	3
PUR 6935	Advanced Integrated Communications Seminar (Prerequisite: Permission of the instructor)	3

Required Courses – International Relations

INR 6107	U.S. Foreign Policy	3
INR 6609	Dynamics of International Relations in the 20th Century	3

Elective Courses – International Relations

INR 4031	The Media and International Relations	3
INR 6089	International Relations and Human Rights	3
INR 6209	Comparative Foreign Policy of Latin America	3
INR 6604	International Relations Theory I	3
INR 6606	Political Psychology of International Relations	3

Current selections from the Latin American and Caribbean Center as offered.

Graduate Certificate in Latin American and Caribbean Studies

Cristina Eguizábal, LACC Director

Liesl Picard, LACC, Acting Associate Director

Astrid Arrarás, LACC Director of Academic Programs

LACC Academic Advisory Committee

Irma T. Alonso, Economics

Maria Aysa-Lastra, Sociology/Anthropology

David B. Bray, Environmental Studies

Sherry Johnson, History

Ana Roca, Modern Languages

Victor M. Uribe, History

Offered through the Latin American and Caribbean Center (LACC), this graduate certificate encourages students to take a multidisciplinary approach to the study of Latin America and the Caribbean. The certificate may be awarded to both degree and non-degree seeking students who complete the requirements. For students pursuing a degree, the certificate is a complement to the student's discipline or major area of studies. For non-degree seeking students, the certificate provides a means for understanding more about Latin America and the Caribbean without pursuing a longer degree program.

Certificate Requirements

1. A total of 15 credit hours of graduate course work with a grade of 'B' or higher. Courses must come from the approved Latin American and Caribbean Studies course listing available in the Latin American and Caribbean Center or otherwise be approved by the certificate program faculty advisor.

2. Courses must be selected from at least two disciplines.

3. A country, regional, or topical concentration may be declared for the graduate certificate. At least three courses with significant Latin American or Caribbean content (100% content on the approved course list) must be completed to obtain a concentration. Concentrations include: Andean Studies, Bilingual Journalism, Brazilian

Studies, Caribbean Studies, Central American Studies, Cuban Studies, Cultural Studies, Foreign Policy and Security Studies, Haitian Studies, Hispanic Literature and Film, International Business, International Development, International Trade, Mexican Studies, or South American Studies. Students may also petition to create their own concentration, provided there are sufficient courses to support the concentration.

4. Each student is required to demonstrate reading proficiency in either Spanish or Portuguese, or in another regional language such as French, Haitian Creole, or Dutch when justified by research interests. Proficiency is demonstrated by scoring at least 'intermediate-high' on the ACTFL/ETS exam for Spanish, Portuguese, or French. For other languages, corresponding tests of proficiency and levels of achievement will be required.

NOTE: Intermediate-high on the ACTFL/ETS exam (1-plus on the US government scale) can normally be attained by students with two undergraduate semesters of basic language instruction and at least one undergraduate semester of intermediate (3000/4000 level) instruction. Attainment of the required language proficiency is the responsibility of the student and extra courses to achieve the required proficiency level must be taken outside the certificate curriculum.

Courses approved for the Latin American and Caribbean Studies Graduate Certificate are posted each semester on the FIU Class Schedule at <http://sis2.fiu.edu/classsschedule>. Under Special Programs and Certificate Programs select Latin American & Caribbean Studies. All courses listed from 5000 through 7000 series may be applied to the certificate. Approved courses are also posted each semester outside LACC (DM 353) or are available from the certificate advisor.

Students interested in pursuing a Latin American and Caribbean Studies Graduate Certificate should contact the certificate advisor at (305) 348-2894 for an appointment or email MALACS@fiu.edu.

Graduate Certificate in National Security Studies

John F. Stack, Jr., *Director, Political Science and Law*

Coordinating Committee

John Boyd, *Economics*

Ralph S. Clem, *International Relations*

Edward Glab, *College of Business*

Christine Gudorf, *Religious Studies*

Steven Heine, *Religious Studies and History*

Paul Kowert, *International Relations*

Jeremy Levitt, *College of Law*

Mohiaddin Mesbahi, *International Relations*

Richard Olson, *Political Science*

Ediberto Roman, *College of Law*

Luis Salas, *Criminal Justice*

Richard Tardano, *Sociology/Anthropology*

Victor Uribe, *History*

Offered through the Jack D. Gordon Institute for Public Policy and Citizenship Studies, the certificate may be awarded to both degree and non-degree seeking students who complete the requirements. For students pursuing a degree, the certificate is a complement to a student's discipline or major area of studies. For non-degree seeking students, the certificate provides a means for

understanding more about national security in the 21st century.

Certificate Requirements

1. A total of 18 credit hours of graduate course work with a grade of "B" or higher. Courses must come from the approved GCNSS course listing or be approved by the certificate advisor. Courses may include those in the student's departmental major, but must also be selected from at least two disciplines outside the student's departmental major. With the approval of the Director, courses other than those listed herein may be substituted on a case by case basis.
2. A two-course introductory language sequence at FIU with a grade of "B" or higher. Exemption from this requirement may be obtained through a proficiency examination administered by the FIU Department of Modern Languages. Language courses may not be counted toward the fulfillment of requirement #1 above.

Note: Intermediate-high on the ACTFL exam (1-plus on the US government scale) can normally be attained by students with two undergraduate semesters of basic language instruction and at least one undergraduate semester of intermediate (3000/4000) instruction. Attainment of the required language proficiency is the responsibility of the student, and extra courses to achieve the required proficiency level must be taken outside the GCNSS curriculum.

Skill Requirement: (3 credit hours)

POS 5785 Writing Professionally

Core Requirement: (6 credit hours)

Select **one** of the following courses:

GIS 5620 Surveillance, Intelligence, and

International Relations

POS 5706 Research Methodology

SYA 6305 Research Methods I

Select **one** of the following courses:

INR 5007 Seminar in International Politics

INR 5105 American Foreign Policy

INR 5315 Foreign Policy Analysis

INR 5615 Research Design in International Relations

INR 6107 U.S. Foreign Policy

INR 6338 Seminar in Strategic Studies

National Security Studies (3 credit hours)

Select **two** of the following courses:

Business, Finance & Management

FIN 6487 Financial Risk Management – Financial Engineering

FIN 6636 International Finance

Criminal Justice

CJE 5024 Violent Crime & Criminal Behavior

CCJ 5106 Law & Social Control

Economics

ECO 5709 The World Economy

ECP 5707 International Economic Problems

ECS 5005 Comparative Economic Systems

ECS 5027 Economic Development of Emerging Nations

ECS 7015 Development Economics: Theory

ECS 7026 Development Economics: Planning and Policy

History

HIS 5939	Special Topics
AMH 5935	Topics in American History
EUH 5935	Topics in European History

International Relations & Geography

GIS 5935	Topics in Geographic Information Systems
GIS 5038	Remote Sensing
GEO 5415	Topics in Social Geography
INR 5062	War, Peace and Conflict Resolution in INR
INR 6089	International Relations and Human Rights
INR 6338	Seminar in Strategic Studies
INR 6606	Political Psychology of International Relations

Law

LAW 6506	Foreign Relations and National Security Law
LAW 6936	Topics: Seminar in National Security and the Constitution

Political Science

CPO 5036	Politics of Development
CPO 5936	Seminar in Comparative Political Parties
CPO 6084	War, Peace & Military
CPO 6092	Seminar in Comparative Political Culture
INR 5036	Politics of Globalization
INR 5934	Topics in International Politics
INR 6080	Seminar on Non-State Actors
INR 6205	World Politics
INR 6705	Seminar in International Political Economy

Sociology/Anthropology

SYO 6306	Political Sociology
SYP 5447	Sociology of International Development

Area Studies (6 credit hours)

Select **two** of the following courses:

Business, Finance & Management

FIN 6656	Latin American Financial Markets
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Criminal Justice

CCJ 5040	Comparative Crime and Criminal Justice Systems
CCJ 5056	Historical Development of Criminology and Criminal Justice
CCJ 5288	Legal Issues for Criminal Justice
CCJ 5935	Special Topics
CCJ 6477	Seminar in Information Systems.
PAD 6701	Quantitative Methods in Public Administration

Economics

ECO 6225	Economics of Asset Markets
ECO 6416	Applied Quantitative Methods in Economics
ECO 7206	Macroeconomic Theory I
ECO 7207	Macroeconomic Theory II
ECO 7236	Money, Banking and Monetary Policy
ECO 7424	Economic Metric Methods I
ECO 7425	Economic Metric Methods II
ECO 7705	International Trade
ECO 7716	International Money
ECS 5406	Latin American Economies
ECS 6436	Economics of Caribbean Migration

ECS 7405

ECS 7435

ECS 7445

History

AFH 5905	Readings in African History
AFH 5935	Topics in African History
AMH 5905	Readings in American History
AMH 5935	Topics in American History
EUH 5905	Readings in European History
EUH 5935	Topics in European History
HIS 6059	Historical Methods
LAH 5905	Readings in Latin American History
LAH 5935	Topics in Latin American History
WHO 5237	The African Diaspora Since the End of the Slave Trade

International Relations & Geography

GEA 6409	Landscapes of Violence and Healing in the Americas
GEO 5557	Globalization
GEO 6473	Space, Place and Identity
INR 5036	Politics of Globalization
INR 5086	Islam in International Relations
INR 5087	Ethnicity and the Politics of Development
INR 5255	Seminar in African Development
INR 5275	International Relations of the Middle East
INR 5409	International Law I
INR 5507	International Organizations I
INR 5607	International Relations and Development
INR 6209	Comparative Foreign Policy of Latin America
INR 6266	Russian Foreign Policy
INR 6406	International Law II
INR 6605	Contemporary International Systems
INR 6609	Dynamics of International Relations in the 20 th Century
INR 6706	Political Economy of International Relations

Law

LAW 6251	Comparative Constitutional Law
LAW 6251	Comparative Law: Constitutions and the Judicial Process
LAW 6280	European Community Law
LAW 6264	Immigration Law
LAW 6103	International Criminal Law
LAW 7268	International Environmental Law
LAW 6263	International Human Rights Law
LAW 6282	Law and Politics in Latin America
LAW 6260	Public International Law
LAW 7930	Special Topics in Law

Political Science

CPO 5325	Politics of the Caribbean
CPO 6105	Politics of the European Union
CPO 6106	Seminar in European Politics
CPO 6206	Seminar in African Politics
CPO 6307	Seminar on South American Politics
CPO 6350	Seminar in Brazilian Politics
CPO 6376	Seminar in Central American Politics
CPO 6407	Seminar in Politics of the Middle East
CPO 6771	Politics of Disaster
CPO 6316	Seminar in Latin American Democratic Institutions

INR 5087	Ethnicity and the Politics of Development
INR 6936	Seminar in Inter-American Politics
POS 6725	Formal Political Modeling
POS 6918	Seminar in Political Science Research

Religious Studies

REL 5025	Myth and Religion
REL 5144	Women and Religion
REL 5149	Religion, Violence, and Conflict
REL 5352	Religions of East Asia
REL 5488	Theology and Liberation Movements
REL 6322	Seminar in Western Religions
REL 6395	Seminar in Asian Religions
REL 6442	Religion in the Contemporary World

Sociology/Anthropology

ANG 6303	Comparative Feminisms
ANG 6339	Seminar on Latin America
ANT 6302	Gender Identity in Comparative Perspective
SYD 5045	Population and Society
SYD 6236	International Migration and Refugees
SYD 6705	Comparative Analysis of Ethnicity and Race
SYG 6932	Special Topics in Disaster Studies
SYP 6306	Comparative Social Movements
SYP 6907	Seminar in Comparative Social Change

Graduate Certificate Program in Religious Studies

The purpose of the Graduate Certificate Program is to offer an alternative to the MA degree program for students who wish to pursue an organized program of study at the graduate level, but have no need of a degree and wish a shorter term project.

Requirements

1. Students must either have taken the undergraduate course REL 3308 World Religions as a prerequisite before entering the certificate program, or must complete it within the program, usually in the first semester of coursework.
2. Students must complete 18 credit hours of graduate level courses in the general area of religion.
3. Students must have a minimum GPA of 3.0 in their graduate religion courses.
4. Earned grades in the 18 hours of graduate religion courses must be "B" or better; grades of "B-" or below will not be counted toward the 18.
5. Students in the Graduate Certificate Program in Religious Studies who wish to transfer into the MA program must meet the requirements for matriculation.

Graduate Certificate in Sustainable Communities

Laura Ogden, *Director, Sociology/Anthropology*

Coordinating Committee

Marta Canaves, *Landscape Architecture*

Richard Olson, *Political Science*

John Clark, *International Relations*

Christine Gudorf, *Religious Studies*

John H. Boyd, III, *Economics*

Joel Heinen, *Environmental Studies*

The Graduate Certificate in Sustainable Communities offers students an introduction to the theoretical and methodological tools necessary to critique and conduct research on society/environment interactions. The objective of the certificate is to prepare students to participate in current environmental debates, whether through scholarship and teaching, non academic professional activities or activism. The certificate requires eighteen credits of interdisciplinary courses.

This certificate will appeal to an interdisciplinary graduate student population at FIU drawing students from Arts and Sciences, as well as other schools and colleges (as reflected in the requirements below). In particular, the certificate will aid students interested in natural resource management and conservation, regional and urban planning, as well as domestic and international development and policy issues. The certificate will serve students interested in pursuing careers in local, national and international government and non-governmental organizations, as well as academic careers.

Requirements

1. Application to the Certificate Program.
2. Acceptance to and good standing in a graduate degree program at FIU.

Core Course

ISS 5166	Seminar in Sustainable Communities
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Electives

12 credit hours chosen from the list below. A 3 credit course can be substituted for any one of the listed electives with the approval of the Certificate Program Director.

Economics

ECP 6305	Advanced Environmental Economics
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Environmental Studies

EVR 5330	Tropical Ecosystem Management
EVR 5355	Environmental Resources Policy
EVR 5360	Protected Area Management
EVR 6322	Methods of Sustainable Resource Management

International Relations

GEO 6473	Space, Place and Identity
INR 6056	Environment and Development

Parks and Recreation Management

LEI 5605	Philosophical and Social Basis of Parks and Recreation
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Political Science

CPO 6771	Politics of Disaster
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Religious Studies

REL 5183	Ethics of the Environment
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Sociology and Anthropology

ANG 5403	Ecological Anthropology/Cultural Ecology
ANT 5318	American Culture and Society: Landscapes and Power
SYD 6901	GIS and Social Research

Landscape Architecture

LAA 5243	Regional Landscape Issues
LAA 6551	Sustainable Landscapes
LAA 5541	South Florida Landscapes
LAA 6521	Tropical Landscapes

Possible Further Course Offerings

Development and Indigenous Peoples (Dept. Soc/Anth)
 Historical Ecology/Landscape History (Dept. Soc/Anth)
 Eco-Capitalism and Cultural Politics (Dept. Soc/Anth)

Latin American Social Movements (Dept. Soc/Anth)
Political Ecology of the Environment (Dept. EVR)

Directed Research (3 credits)

In consultation with the Certificate Program Director, student will produce an independent research paper or comparable piece of work on sustainable communities.

Graduate Certificate in Transnational and Regional Studies

Sarah J. Mahler, *Director, Center for Transnational and Comparative Studies*

Coordinating Committee

Nathan Katz, *Religious Studies*

A. Douglas Kincaid, *Sociology/Anthropology*

Mohiaddin Mesbahi, *International Relations*

Aurora Morcillo, *History*

Elisabeth Prugl, *International Relations*

The objective is to provide interdisciplinary graduate instruction in international/global studies that require specialization in one of the following main world regions, including Asia, Europe, Middle East, Russia or Central Asia. (*Students interested in Latin America or Africa may wish to consult those programs*). For more information on the graduate degree, contact the Center for Transnational and Comparative Studies, DM 368, telephone (305) 348-6561, fax (305) 348-6562, email: tcs@fiu.edu or visit our website: <http://tcs.fiu.edu>.

The Program requires 15 graduate-level credit hours (5 courses). Students will be advised by the Program Director and by the committee member with expertise in the region of specialization. Courses must be passed with "B", or better (*B- is not acceptable*).

Course Requirements: 15 credits

Core Course in Global Studies (3 credits):

A course in comparative or global studies, such as:

CPO 5091	Seminar in Comparative Politics
ECO 5709	The World Economy
ECP 5704	International Economic Problems and Policy
FOW 5587	Comparative Studies
HIS 5289	Comparative History
INR 6017	Comparative Approaches to Area Studies and Global Issues
MUH 5057	Music of the World
REL 5135	Sects, Cults, and New Religions
SYP 5447	Sociology of International Development

Regional Studies Courses (9 credits):

Courses in studies of the specialty region-Asia, Europe, Middle East, Russia, or Central Asia. The courses can be taken in any relevant discipline, but must come from at least two different departments or disciplines.

Directed Research (3 credits):

Supervision of an intensive research paper, fieldwork studies, or a comparable in-depth specialized project in studies of the region.

Language Requirements (credits cannot be applied to the certificate):

One year of study, or equivalent, in a language appropriate to the specialty region (such as Chinese or Japanese for Asian Studies, Hebrew or Arabic for Middle Eastern Studies).

Graduate Certificate in Water Environment and Development Studies

Michael McClain, *Chair, Environmental Studies*

Coordinating Committee

Shlomi Dinar, *International Relations*

Janvier Gasana, *Environmental and Occupational Health*

Assefa Melesse, *Environmental Studies*

Fernando Miralles-Wilhelm, *Civil and Environmental Engineering*

René Price, *Earth Sciences*

Mike Sukop, *Earth Sciences*

The goal of the Graduate Certificate in Water, Environment, and Development Studies is to provide students with a multidisciplinary education in the occurrence, characteristics, and management of water resources in South Florida and internationally. Students will learn about the natural occurrence and dynamics of surface and ground water, the key biological and chemical factors affecting water resource quality, and the fundamental linkages between water and development. The graduate certificate program promotes an integrated understanding of the theoretical and practical elements of water resources management.

The Graduate Certificate Program requires the successful completion of 15 credit hours of graduate course work. Students must maintain an average GPA of 3.0 or above and must earn a "C" or above in all courses counting toward the certificate. All students in the program are required to take one foundation course and at least one course from both the natural science and social science lists below. The remaining 6 credits may be satisfied with any combination of approved courses listed below.

Required Foundation Course

EVR 5332	Integrated Solutions for Water in Environment and Development	3
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Natural Science, Engineering, and Public Health Courses

(all students must take at least one)

PCB 4301	Freshwater Ecology	3
EVR 5215	Water Resources Assessment	3
ENV 6435*	Design of Drinking Water Treatment Plants	3
EVS 5145	Ecotoxicology	3
GLY 5245	Water-Rock Interaction	3
GLY 5266	Stable Isotope Biogeochemistry	3
PCB 5307	Limnology	3
EVR 5320	Environmental Resources Management	3
GLY 5827	Hydrogeology	3
BOT 5406	Algal Physiology	3
ENV 5517*	Design of Wastewater Treatment Plants	3
ENV 5666*	Water Quality Management	3
GLY 5754	Applied Remote Sensing in the Earth Sciences	3
CHM 5765	Aquatic Chemistry	3
GLY 5826	Hydrogeologic Modeling	3
GLY 5827	Hydrogeology	3
GLY 5828	Chemical Hydrogeology and Solute Transport	3
EVR 5905	Independent Study (or any other independent study from other departments)	3
EVR 6056	GIS in Water Resources	3

CWR 6125	Groundwater Hydrology	3
CHM 6340*	Organic Geochemistry	3
ENV 5140C*	Ecohydrology	3
ENV 6615	Environmental Impact Assessment	3
GLY 6896	Advanced Topics in Hydrology	3
EVR 7329	Watershed Analysis and Management	3

*Engineering graduate courses are offered for graduate students with a relevant engineering background or other students meeting needed prerequisites and applicable criteria. Students must confirm their eligibility, in advance to any registration, with either the Civil and Environmental Engineering Graduate Program Director and the responsible instructor.

Social Science and Public Health Courses

(all students must take at least one)

CPO 5036	Politics of Development	3
SYD 5045	Population and Society	3
INR 5352	Environment and Security	3
EVR 5355	Environmental Resource Policy	3
ANG 5403	Ecological Anthropology	3
INR 5409	International Law I	3
SYP 5447	Sociology of International Development	3
INR 5507	International Organizations	3
INR 5607	International Relations and Development	3
INR 6056	Environment and Development	3
SYD 6236	International Migration and Refugees	3
PHC 6315	Introduction to Environmental Health	3
EVR 6322	Methods of Sustainable Resource Management	3
PHC 6410	Health Behavior and Public Health	3
PHC 6425	Legal and Regulatory Aspects of Environmental Health	3
PHC 6520	Public Health Aspects of Foodborne Diseases	3
PHC 6115	Global Perspectives of Env Health in the Caribbean and Latin America	3

Seminar Requirements

Students are expected to attend at least five seminars during each semester that they are enrolled in the Certificate Program. Early in each semester, students will be provided with a schedule of water-related seminars offered in departments across campus. The departments of Biology, Chemistry, Civil and Environmental Engineering, Earth Sciences, Environmental and Occupational Health, Environmental Studies, International Relations, and Sociology/Anthropology each sponsor seminar series that commonly include water-related topics.

Students are also be required to give a presentation on a water-related theme in a departmental seminar or professional conference.

Graduate Certificate in Women's Studies

Core Faculty:

Aurora Morcillo, *Interim Director & Associate Professor of Women's Studies/History*

Vrushali Patil, *Assistant Professor, Women's Studies/Sociology*

Beverly Yuen Thompson, *Visiting Assistant Professor, Women's Studies*

Affiliated Faculty:

Dawn Addy, *Center for Labor Research and Studies*

Irma de Alonso, *Economics*

Heather Andrade, *English*

Clair Apodaca, *International Relations*

Maria Aysa, *Sociology*

Lynne Barrett, *English*

Pascale Becel, *Modern Languages*

Michelle Beer, *Philosophy*

Ana Maria Bidegain, *Religious Studies*

Carole Boyce Davies, *African-New World Studies*

Alexandra Cornelius-Diallo, *History/African-New World Studies*

Elizabeth Cooper, *History*

Carol Damian, *Art and Art History*

Jennifer Desiderio, *English*

Cristina Eguizabal, *Director LACC*

Joyce Elam, *Dean, Business Administration*

Rebecca Friedman, *History*

Jose Gabilondo, *Law*

Maria Asunción Gómez, *Modern Languages*

Divina Grossman, *Dean, Nursing*

Christine Gudorf, *Religious Studies*

Kimberly Harrison, *English*

Marilyn Hoder-Salmon, *English*

Vanessa Hudson, *International Relations*

Valerie Johnsen, *Honors College*

Tara Kai, *English*

Suzanne Koptur, *Biological Sciences*

Lara Kriegel, *History*

Abe Lavender, *Sociology/Anthropology*

Felice Lifshitz, *History*

Ana Luszczynska, *English*

Sarah Mahler, *Sociology/Anthropology*

Peggy Maisel, *Law*

Kathleen Martin, *Sociology/Anthropology*

Jennifer J. Matey, *Philosophy*

Kathleen McCormack, *English*

Marilyn Montgomery, *Psychology*

Aisha Musa, *Religious Studies*

Laura Nenzi, *History*

Suzanne Onorato, *Women's Center*

Bennie Osborne, *Management*

Valerie Patterson, *Public Administration*

Joyce Peterson, *History*

Mary Lou Pfeiffer, *Honors College*

Bianca Premo, *History*

Elisabeth Prugl, *International Relations*

Ana Roca, *Modern Languages*

Meri-Jane Rochelson, *English*

Rebecca Salokar, *Political Science*

Ellen Sprechman, *English*

Dionne Stephens, *Psychology*

Judith Stiehm, *Political Science*

James Sutton, *English*

Tami Thomas, *Nursing*

Nan Van Den Bergh, *Social Work*

Gisela Vega, *Student Affairs*

Chantale Verna, *History/International Relations*

Charlyne Walker, *College of Arts and Sciences*

Ophelia Weeks, *Biology*

Barbara Weitz, *English*

Lois West, *Sociology/Anthropology*

Kirsten Wood, *History*

The Women's Studies Graduate Certificate provides students the opportunity to integrate scholarship about

gender into a coherent program of graduate study, i.e., Masters and Ph.D., across a variety of disciplines or as a free standing program of graduate study. For more information, go to:
<http://www.fiu.edu/~wstudies/GradCert.htm>.

Eligibility:

1) All graduate students in an M.A. or Ph.D. program at FIU are eligible to apply to this program. The Women's Studies Center encourages graduate students from all colleges to participate. 2) Students with a Baccalaureate degree from an accredited university may be admitted to the graduate certificate program as a non-degree seeking student. 3) Undergraduate students in their senior year may take graduate level courses to complete their graduate certificate as a post-baccalaureate certificate.

Admissions Requirements:

Students applying for the Graduate Certificate in Women's Studies must meet the following requirements for admission in addition to submitting the application; 1) Have a minimum GPA of 3.0 on a 4.0 scale during the last two years of upper division coursework; 2) Statement of intent; 3) Two letters of recommendation; 4) Current resume; 5) Official academic transcript.

Certificate candidates must complete a total of 15 **CREDIT HOURS** at the **5000 level or higher**. 6 credit hours from the core + 9 credit hours from the list of graduate level electives = 15 credit hours: Six (6) credits must be taken through the WSC and may be chosen from the following **core**:

WST 5905	Independent Study
WST 5935	Special Topics in Women's Studies
WST 5946	Women's Studies Internship
WST 5507	Feminist Theory

Frequently Offered Electives in Women's Studies

The other nine credits (9 credits) may be chosen from the list of outside courses that count toward Women's Studies. Complete listing of all courses offered can be found at <http://www.fiu.edu/~wstudies/coursedescription.html>. The list of current offerings can be found at <http://www.fiu.edu/~wstudies> under Course Listings. Some of the graduate courses in Women Studies already offered at FIU are listed below:

English:

AML 5505	Sp. Top. In Am. Lit: War and the 19th Century American Heroine
AML 5305	Maj. Am. Lit. Fig.: African American Women Writers II
AML 5305	Maj. Am. Lit. Fig.: Women Poets and the Problem of Biography
AML 5305	Maj. Am. Lit. Fig.: Cather, Chopin, Wharton
ENL 5220	Maj. Brit. Lit. Fig.: Jane Austen on Screen and Page
ENL 5505	Per. In Eng. Lit.: Women in Medieval Literature
ENL 5220	Maj. Brit. Lit. Fig.: Sensation Writers: W. Collins & M. Braddon
ENL 5505	Per. In Eng. Lit.: Late Victorian Fiction
LIT 5934	Spec. Topic: Women's Narratives of War (20th Century)
LIT 5934	Spec. Topic: Women's Writing

LIT 5934	Spec. Topic: Women Writers of the African Diaspora
History: AMH 5905	Readings in Am. History: Women and Gender in the U.S.
EUH 5935	Top. In Europ. Hist.: The Spanish Civil War
EUH 5905	Read. In Europ. Hist.: Saints in Europe & the Americas
HIS 5930	Sp. Topics: Totalitarian Regimes & Gender
Labor Studies: LBS 5155	Workplace & Diversity
Modern Languages: SPW 5781	The Representation of Women in Spanish Literature & Film
SPW 5556	Spanish Realism and Naturalism
SPW 5786	Spanish-American Women Writers
Music: MUH 5075	Women in Music
Psychology: CYP 6766	Cross-Cultural Sensitization in a Multicultural Context
Philosophy: PHI 5934	Special Topic: Philosophy & Feminism
Religion: REL 5502	Saints, Witches, and Cathedrals
REL 5184	Sexual Ethics
Sociology/Anthropology: SYD 6325	Sociology of Gender
Social Work: SOW 5109	Crises in the Lives of Women
Public Administration PAD 5435	Administration & the Role of Women

Students may take up to three hours of approved independent study work (WST 5905) or apply up to three credit hours of thesis or dissertation research to the certificate if the research has a prominent focus on women and gender.

Note: Standard and new courses are offered each semester. Courses are cross-listed in the schedule. The approval of an advisor is required for core course substitution and for graduate level work.

College of Arts and Sciences

Dean	Kenneth G. Furton
Senior Associate Dean for Liberal Arts	Nicol Rae
Senior Associate Dean for the Science	Suzanna Rose
Associate Dean, College Relations	Gisela Casines
Associate Dean, Biscayne Bay	
Campus	Joyce Peterson
Assistant Dean, Advising	Kenton Harris

Chairpersons and Program Directors:

African-New World Studies	Akin Ogundiran
Biological Sciences	Laurie Richardson
Chemistry and Biochemistry	Stanislaw Wnuk
Earth Sciences	Bradford Clement
Economics	John Boyd III
English	Carmela Pinto-McIntire
Environmental Studies	Joel Heinen
History	Mark D. Szuchman
Humanities	Bruce Harvey
International Relations	John Clark
Latin American and Caribbean	
Center	Cristina Eguizabal
Liberal Studies	Janat Parker
Mathematics	Julian Edward
Modern Languages	Pascale Becel
Philosophy	Kenneth Rogerson
Physics	Walter Van Hamme
Political Science	Richard Olson
Psychology	Mary Levitt
Religious Studies	Christine Gudorf
Sociology and Anthropology	Richard Tardanico
Statistics	Sneh Gulati
Women's Studies (acting)	Aurora Morcillo

Faculty

Al-Khalili, Majid, Ph.D. (Florida International University), Lecturer, International Relations	
Aladro, Gerardo, Ph.D. (Pennsylvania State University), Associate Professor, Mathematics	
Allen-Hermanson, Sean, Ph.D. (University of Toronto), Assistant Professor, Philosophy	
Almirall, Jose, Ph.D. (University of Strathclyde, Scotland), Associate Professor, Chemistry and Biochemistry	
An, Dongmei, M.S. (Mississippi State University), Instructor, Statistics	
Anbarci, Nejat, Ph.D. (University of Iowa), Professor, Economics	
Anderson, William, Ph.D. (Swiss Federal Institute of Technology-Zurich), Associate Professor, Earth Sciences and Southeast Environmental Research Center	
Andrade, Heather, Ph.D. (Rutgers), Assistant Professor, English	
Apodaca, Claire, Ph.D. (Purdue University), Associate Professor, International Relations	
Arango, Lisa, Ph.D. (Florida International University), Lecturer, Psychology	
Arraras, Astrid, Ph.D. (Princeton University), Lecturer, Political Science	
Aysa-Lastra, Maria, Ph.D. (University of Pennsylvania), Assistant Professor, Sociology/Anthropology	

Bahrnick, Lorraine, Ph.D. (Cornell University), Professor, Psychology	
Baker, Joan L., Ph.D. (University of Washington), Associate Professor, English	
Baldor, Aurelio, M.A. (Florida International University), Instructor, Modern Languages	
Barbieri, Manuel, Ph.D. (Universidad Nacional de San Luis, Argentina), Assistant Professor, Biological Sciences	
Barrett, Lynne, M.F.A. (University of North Carolina- Greensboro), Professor, English	
Becel, Pascale, Ph.D. (University of California-Davis), Associate Professor and Chairperson, Modern Languages	
Becker, David, Ph.D. (Massachusetts Institute of Technology), Associate Professor, Chemistry and Biochemistry	
Beer, Michelle, Ph.D. (University of Pittsburgh), Associate Professor, Philosophy	
Bekker, Leonid, M.S. (Florida International University), Instructor, Statistics	
Bennett, Bradley C., Ph.D. (University of North Carolina- Chapel Hill), Associate Professor, Biological Sciences and Environmental Studies	
Bennett, Evan, Ph.D. (College of William and Mary), Instructor, History	
Bentley-Baker, Dan, M.F.A. (Florida International University), Lecturer, English	
Berk, Lynn, Ph.D. (Purdue University), Professor Emerita, English	
Bernstein, Jeffery, Ph.D. (University of Western Ontario), Professor, Economics	
Berry, John, Ph.D. (Cornell University), Assistant Professor, Chemistry and Biochemistry	
Bhat, Mahadev, Ph.D. (University of Tennessee- Knoxville), Associate Professor, Environmental Studies and Economics	
Bidarkota, Prasad, Ph.D. (Ohio State University), Associate Professor, Economics	
Bidegain, Ana Maria, Ph.D. (Catholic University of Louvain, Belgium), Associate Professor, Religious Studies	
Bigger, Charles, Ph.D. (Florida State University), Professor, Biological Sciences	
Boeglin, Werner, Ph.D. (University of Basel, Switzerland), Associate Professor, Physics	
Bone, Richard, Ph.D. (University of West Indies, Jamaica), Professor, Physics	
Boyce Davies, Carole, Ph.D. (University of Ibadan, Nigeria), Professor, English	
Boyd III, John H., Ph.D. (Indiana University), Associate Professor and Chairperson, Economics	
Bray, David, Ph.D. (Brown University), Professor, Environmental Studies	
Breslin, Thomas A., Ph.D. (University of Virginia), Professor, International Relations	
Brinn, Richard, Ph.D. (University of Sao Paulo State), Lecturer, Biological Sciences	
Brown, Christopher, Ph.D. (University of Delaware), Professor, Biological Sciences	
Brown, Jerry, Ph.D. (Cornell University), Associate Professor, Sociology/Anthropology	
Bull, Jesse, Ph.D. (University of California-San Diego), Assistant Professor, Economics	

- Cadely, Jean-Robert, Ph.D.** (*Universite du Quebec-Montreal*), Associate Professor, Modern Languages
- Cai, Yong, Ph.D.** (*Nankai University, China*), Associate Professor, Chemistry and Biochemistry
- Camayd-Freixas, Erik, Ph.D.** (*Harvard University*), Associate Professor, Modern Languages
- Cao, Chongsheng, Ph.D.** (*University of California-Irvine*), Assistant Professor, Mathematics
- Carton, Joel D., Ph.D.** (*University of Oregon*), Lecturer, Economics
- Carvajal, Manuel, Ph.D.** (*University of Florida*), Professor, Economics
- Casines, Gisela, Ph.D.** (*University of Florida*), Associate Professor, English and Associate Dean, College of Arts and Sciences
- Castells, Ricardo, Ph.D.** (*Duke University*), Professor, Modern Languages
- Chapagain, Prem, Ph.D.** (*Florida International University*), Assistant Professor, Physics
- Charman, Stephen, Ph.D.** (*Iowa State University*), Assistant Professor, Psychology
- Chatfield, David, Ph.D.** (*University of Minnesota*), Associate Professor, Chemistry and Biochemistry
- Chen, Chun-Fan, Ph.D.** (*University of Michigan*), Associate Professor, Biological Sciences
- Chen, Z. Sherman, Ph.D.** (*University of Texas-Dallas*), Associate Professor, Statistics
- Chernela, Janet, Ph.D.** (*Columbia University*), Professor Emerita, Sociology/Anthropology
- Chinelly, Cynthia, M.F.A.** (*University of Arkansas*), Lecturer, English
- Chisik, Richard, Ph.D.** (*Northwestern University*), Associate Professor, Economics
- Chung, Bongkil, Ph.D.** (*Michigan State University*), Professor, Philosophy
- Clark, John, Ph.D.** (*University of Virginia*), Associate Professor and Chairperson, International Relations
- Clem, Ralph, Ph.D.** (*Columbia University*), Professor, International Relations
- Clement, Bradford, Ph.D.** (*Columbia University*), Professor and Chairperson, Earth Sciences
- Collins, Laurel, Ph.D.** (*Yale University*), Associate Professor, Earth Sciences and Biological Sciences
- Collins, Timothy, Ph.D.** (*Yale University*), Associate Professor, Biological Sciences
- Cook, N. David, Ph.D.** (*University of Texas-Austin*), Professor, History
- Cooper, Elizabeth, Ph.D.** (*University of Chicago*), Assistant Professor, History
- Cornelius-Diallo, Alexandra, Ph.D.** (*Washington University*), Assistant Professor, History and African-New World Studies
- Cox, Ronald W., Ph.D.** (*University of Wisconsin*), Associate Professor, Political Science
- Craumer, Peter, Ph.D.** (*Columbia University*), Associate Professor, International Relations
- Crosby, James, Ph.D.** (*Yale University*), Professor Emeritus, Modern Languages
- Darici, Yesim, Ph.D.** (*University of Missouri*), Associate Professor, Physics
- Daruwala, Maneck, Ph.D.** (*University of Rochester*), Associate Professor, English
- Davies, Gwyn, Ph.D.** (*University College, London*), Assistant Professor, History
- Debrix, Francois, Ph.D.** (*Purdue University*), Associate Professor, International Relations
- DeCarli, Laura, Ph.D.** (*University of California-Los Angeles*), Associate Professor, Mathematics
- de Alonso, Irma, Ph.D.** (*University of York, England*), Professor, Economics
- Delgado, Milagros, Ph.D.** (*University of Miami*), Lecturer, Chemistry and Biochemistry
- Demos, Marian, Ph.D.** (*Harvard University*), Associate Professor, Humanities and Modern Languages
- Dickson, Vernon, Ph.D.** (*Arizona State University*), Assistant Professor, English
- Dinar, Shlomi, Ph.D.** (*The Johns Hopkins University*), Assistant Professor, International Relations
- Donnelly, Maureen, Ph.D.** (*University of Miami*), Professor, Biological Sciences
- Draghici, Tedi, Ph.D.** (*Michigan State University*), Associate Professor, Mathematics
- Draper, Grenville, Ph.D.** (*University of the West Indies, Jamaica*), Professor, Earth Sciences
- Dufresne, John, M.F.A.** (*University of Arkansas*), Professor, English
- Duhamel, Denise, M.F.A.** (*Sarah Lawrence College*), Associate Professor, English
- Dunlap, R. Bruce, Ph.D.** (*Indiana University*), Professor, Chemistry and Biochemistry
- Dunn, Marvin, Ph.D.** (*University of Tennessee*), Associate Professor Emeritus, Psychology
- Edward, Julian, Ph.D.** (*Massachusetts Institute of Technology*), Associate Professor and Chairperson, Mathematics
- Elmore, Darrel, Ph.D.** (*Arizona State University*), Lecturer, English
- Erazo, Juliet, Ph.D.** (*University of Michigan*), Assistant Professor, Sociology/Anthropology
- Erber, Joan, Ph.D.** (*St. Louis University*), Professor, Psychology
- Fatovic, Clement, Ph.D.** (*Cornell University*), Assistant Professor, Political Science
- Fernandez, Damian J., Ph.D.** (*University of Miami*), Professor, International Relations, Director of Cuban Research Institute, and Interim Vice Provost, Biscayne Bay Campus
- Fiebig, Rudolf, Ph.D.** (*University of Munster, Germany*), Professor, Physics
- Finley, Gordon, Ph.D.** (*Harvard University*), Professor, Psychology
- Fisher, Ronald, Ph.D.** (*Ohio State University*), Professor, Psychology
- Fjellman, Stephen, Ph.D.** (*Stanford University*), Professor Emeritus, Sociology/Anthropology
- Fourqurean, James, Ph.D.** (*University of Virginia*), Professor, Biological Sciences and Southeast Environmental Research Center
- Fox, Domitila, M.S.** (*University of Miami*), Instructor, Mathematics
- Francisco-Ortega, Javier, Ph.D.** (*University of Birmingham, Great Britain*), Associate Professor, Biological Sciences
- Frazier, Leslie, Ph.D.** (*Syracuse University*), Associate Professor, Psychology
- Friedman, Rebecca, Ph.D.** (*University of Michigan*), Associate Professor, History

- Furton, Kenneth, Ph.D.** (*Wayne State University*), Professor, Chemistry and Biochemistry and Dean, College of Arts and Sciences
- Gaiser, Evelyn, Ph.D.** (*University of Georgia*), Associate Professor, Biological Sciences
- Gamarra, Eduardo, Ph.D.** (*University of Pittsburgh*), Professor, Political Science
- Garcia, Maria, M.A.** (*University of Miami*), Instructor, Modern Languages
- Garcia, Myriam, M.A.** (*Florida International University*), Instructor, Modern Languages
- Gardinali, Piero, Ph.D.** (*Texas A&M University*), Associate Professor, Chemistry and Biochemistry and Southeast Environmental Research Center
- Gebelin, Jennifer, Ph.D.** (*University of California-Santa Barbara*), Assistant Professor, International Relations
- George, Florence, Ph.D.** (*University of South Florida*), Assistant Professor, Statistics
- George, Robert, Ph.D.** (*University of Washington*), Lecturer, Biological Sciences
- Gerstman, Bernard, Ph.D.** (*Princeton University*), Professor, Physics
- Gewirtz, Jacob, Ph.D.** (*Iowa State University*), Professor, Psychology
- Ghai, Gauri, Ph.D.** (*Iowa State University*), Associate Professor, Statistics
- Girard, Chris, Ph.D.** (*University of Wisconsin*), Associate Professor, Sociology/Anthropology
- Gladwin, Hugh, Ph.D.** (*Stanford University*), Associate Professor, Sociology/Anthropology
- Goldberg, Walter, Ph.D.** (*University of Miami*), Professor, Biological Sciences
- Golden, Andrew, M.F.A.** (*Florida International University*), Instructor, English
- Goldin, Liliana, Ph.D.** (*State University of New York at Albany*), Professor, Sociology/Anthropology
- Gomez, Maria Asuncion, Ph.D.** (*Rutgers*), Associate Professor, Modern Languages
- Gomez, Ramon, M.S.** (*University of Miami*), Instructor, Statistics
- Gorman, Susan, Ph.D.** (*University of Maryland*), Instructor, Mathematics
- Gould, Harry, Ph.D.** (*The Johns Hopkins University*), Assistant Professor, International Relations
- Grantcharov, Gueo, Ph.D.** (*Sofia University, Bulgaria*), Assistant Professor, Mathematics
- Grau, Christopher, Ph.D.** (*The John Hopkins University*), Assistant Professor, Philosophy
- Graves, A. Palmer, Ph.D.** (*University of Oklahoma*), Lecturer and Associate Chair, Chemistry and Biochemistry
- Grenier, Guillermo, Ph.D.** (*University of New Mexico*), Professor, Sociology/Anthropology
- Gross, Michael, Ph.D.** (*Pennsylvania State University*), Associate Professor, Earth Sciences
- Gudorf, Christine, Ph.D.** (*Columbia University*), Professor and Chairperson, Religious Studies
- Gulati, Sneh, Ph.D.** (*University of South Carolina*), Professor and Chairperson, Statistics
- Gummerson, Alan, Ph.D.** (*University of Wisconsin*), Instructor, Economics
- Hall, James, Ph.D.** (*University of Utah*), Professor, English
- Haraguchi, Asuka, M.A.** (*Florida State University*), Instructor, Modern Languages
- Hardy, Kenneth, Ph.D.** (*Tulane University*), Professor Emeritus, Physics
- Hargitai, Peter, M.F.A.** (*University of Massachusetts*), Lecturer, English
- Harris, Kenton, Ph.D.** (*University of Miami*), Lecturer, Philosophy and Assistant Dean, College of Arts and Sciences
- Harrison, Kimberly, Ph.D.** (*Louisiana State University*), Associate Professor, English
- Harvey, Bruce, Ph.D.** (*Stanford University*), Associate Professor, English and Director, Humanities Program
- Hauptli, Bruce, Ph.D.** (*Washington University*), Professor, Philosophy
- Heine, Steven, Ph.D.** (*Temple University*), Professor, Religious Studies and Director, Asian Studies Program
- Heinen, Joel, Ph.D.** (*University of Michigan*), Associate Professor and Chairperson, Environmental Studies
- Heithaus, Michael, Ph.D.** (*Simon Fraser University, Canada*), Assistant Professor, Biological Sciences
- Helenon, Veronique, Ph.D.** (*Centre d'Etudes Africaines, France*), Assistant Professor, History
- Henley, Kenneth, Ph.D.** (*University of Virginia*), Professor, Philosophy
- Herrera, Rene, Ph.D.** (*Fordham University*), Professor, Biological Sciences
- Herriott, Arthur, Ph.D.** (*University of Florida*), Professor, Chemistry and Biochemistry
- Hickey-Vargas, Rosemary, Ph.D.** (*Massachusetts Institute of Technology*) Professor, Earth Sciences
- Hill, Jonathan, Ph.D.** (*University of Colorado*), Assistant Professor, Economics
- Hill, Kevin, Ph.D.** (*University of Florida*), Associate Professor, Political Science
- Hiller, Nathan, Ph.D.** (*Pennsylvania State University*), Assistant Professor, Psychology
- Hoder-Salmon, Marilyn, Ph.D.** (*University of New Mexico*), Associate Professor, English
- Hollander, Gail, Ph.D.** (*University of Iowa*), Associate Professor, International Relations
- Hopkins, Tometro, Ph.D.** (*Indiana University*), Associate Professor, English
- Huang, Kai, Ph.D.** (*Michigan State University*), Assistant Professor, Mathematics
- Huchingson, James, Ph.D.** (*Emory University*), Professor, Religious Studies
- Hudson, Steven, Ph.D.** (*University of Chicago*), Associate Professor, Mathematics
- Iotov, Mirroslov, Ph.D.** (*Sofia University, Bulgaria*), Assistant Professor, Mathematics
- Jaccard, James, Ph.D.** (*University of Illinois*), Professor, Psychology
- Jaffe, Rudolf, Ph.D.** (*Indiana University*), Professor, Chemistry and Biochemistry and Director, Southeast Environmental Research Center
- Jayachandran, Krishnaswamy, Ph.D.** (*Kansas State University*), Associate Professor, Environmental Studies and Southeast Environmental Research Program
- Jensen, John, Ph.D.** (*Harvard University*), Professor, Modern Languages
- Joens, Jeffrey, Ph.D.** (*Indiana University*), Professor, Chemistry and Biochemistry

- Johnson, Kenneth, Ph.D.** (*Brown University*), Associate Professor, English and Vice Provost, Academic Affairs
- Johnson, Paulette, Ph.D.** (*Kansas State University*), Lecturer, Statistics and Director of Statistical Consulting
- Johnson, Sherry, Ph.D.** (*University of Florida*), Associate Professor, History
- Jorge, Antonio, Ph.D.** (*Universidad de Villanueva, Cuba*), Professor Emeritus, Economics, International Relations, Political Science and Sociology/Anthropology
- Juan-Navarro, Santiago, Ph.D.** (*Columbia University*), Associate Professor, Modern Languages
- Kafkoulis, George, Ph.D.** (*California Institute of Technology*), Associate Professor, Mathematics
- Kaminsky, Howard, Ph.D.** (*University of Chicago*), Professor Emeritus, History
- Karayalcin, Ali Cem, Ph.D.** (*Columbia University*), Professor, Economics
- Katz, Nathan, Ph.D.** (*Temple University*), Professor, Religious Studies
- Kavallieratos, Konstantinos, Ph.D.** (*Yale University*), Associate Professor, Chemistry and Biochemistry
- Keller, Leonard, Ph.D.** (*Yale University*), Professor, Chemistry and Biochemistry and Associate Director, Liberal Studies Program
- Kibria, Golam, Ph.D.** (*University of Western Ontario*), Associate Professor, Statistics
- Kim, Leong, Ph.D.** (*Rutgers*), Assistant Professor, Biological Sciences
- Kincaid, A. Douglas, Ph.D.** (*The Johns Hopkins University*), Associate Professor, Sociology/Anthropology and Vice Provost, International Studies
- Knapp, Jeffrey, M.A.** (*University of Miami*), Instructor, English and Director, Academy for the Art of Teaching
- Koptur, Suzanne, Ph.D.** (*University of California-Berkeley*), Professor, Biological Sciences
- Kos, Lidia, Ph.D.** (*University of California-Berkeley*), Associate Professor, Biological Sciences
- Kostadinova, Tatiana, Ph.D.** (*Florida State University*), Assistant Professor, Political Science
- Kouemou, Solange, Ph.D.** (*University Louis Pasteur, Strasbourg, France*), Lecturer, Mathematics
- Kovacs, George, Ph.D.** (*University of Louvain*), Professor, Philosophy
- Kowert, Paul, Ph.D.** (*Cornell University*), Associate Professor, International Relations
- Kramer, Laird, Ph.D.** (*Duke University*), Associate Professor, Physics
- Kriegel, Lara, Ph.D.** (*The Johns Hopkins University*), Associate Professor, History
- Kuhn, David N., Ph.D.** (*University of California-Davis*), Associate Professor, Biological Sciences
- Kurtines, William, Ph.D.** (*The Johns Hopkins University*), Professor, Psychology
- Landrum, John, Ph.D.** (*University of Southern California*), Professor, Chemistry and Biochemistry
- Larson, Erik, Ph.D.** (*New York University*), Associate Professor, Religious Studies
- Lauren, Benjamin, M.A.** (*Florida State University*), Instructor, English
- Lavender, Abraham, Ph.D.** (*University of Maryland*), Professor, Sociology/Anthropology
- Layman, Craig, Ph.D.** (*Texas A&M University*), Assistant Professor, Biological Sciences
- Leatherman, Stephen P., Ph.D.** (*University of Virginia*), Professor, Environmental Studies and Director, International Hurricane Center
- Leckband, Mark, Ph.D.** (*Purdue University*) Associate Professor, Mathematics
- Lee, David, Ph.D.** (*Rutgers*), Professor, Biological Sciences
- Lee, Jungmin, Ph.D.** (*University of Texas*), Assistant Professor
- Lees, Watson, Ph.D.** (*Harvard University*), Associate Professor, Chemistry and Biochemistry
- Leness, Thomas, Ph.D.** (*Columbia University*), Associate Professor, Mathematics
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Onuf, Nicholas, Ph.D. (The Johns Hopkins University), Professor Emeritus, International Relations

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- Price, Rene Mari, Ph.D.** (*University of Miami*), Assistant Professor, Earth Sciences and Southeast Environmental Research Center
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- Quirke, Martin, Ph.D.** (*University of Liverpool*), Professor, Chemistry and Biochemistry
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- Rock, Howard, Ph.D.** (*New York University*), Professor, History
- Rogerson, Kenneth, Ph.D.** (*University of California-San Diego*), Professor and Chairperson, Philosophy
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- Schwartz, Richard, Ph.D.** (*University of Chicago*), Professor, English
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- Silverman, Renee M., Ph.D.** (*University of Michigan*), Assistant Professor, Modern Languages
- Silverman, Wendy, Ph.D.** (*Case Western Reserve University*), Professor, Psychology and Director, Child and Family Psychosocial Research Center
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- Simpson, Caroline, Ph.D.** (*University of Florida*), Associate Professor, Physics
- Smith, Benjamin, M.A.** (*University of Kentucky*), Instructor, International Relations
- Smith, Sylvia, Ph.D.** (*University of Miami*), Professor, Biological Sciences
- Srimal, Neptune, Ph.D.** (*University of Rochester*), Instructor, Earth Sciences
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Tracey, Martin, Ph.D. (Brown University), Professor, Biological Sciences

Trerise, Jonathan, Ph.D. (University of Missouri-Columbia), Instructor, Philosophy

Trexler, Joel C., Ph.D. (Florida State University), Professor, Biological Sciences

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Uribe, Victor, Ph.D. (University of Pittsburgh), Associate Professor, History

Van Hamme, Walter, Ph.D. (University of Ghent, Belgium), Professor and Chairperson, Physics

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Viswesvaran, Chockalingam, Ph.D. (University of Iowa), Professor, Psychology

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Wakefield, Daniel, B.A. (Columbia College), Lecturer and Writer-in-Residence, English

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Wang, Xuewen, Ph.D. (Iowa State University), Associate Professor, Physics

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Webb, James, Ph.D. (University of Florida), Professor, Physics

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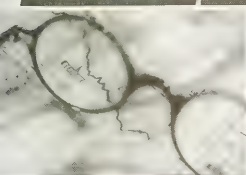
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FLORIDA INTERNATIONAL UNIVERSITY



COLLEGE OF **BUSINESS** ADMINISTRATION

College of Business Administration

Alvah H. Chapman, Jr., Graduate School of Business

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<i>Senior Associate Dean</i>	Christos Koulamas
<i>Associate Dean, Academic Affairs and Undergraduate Programs</i>	Clifford R. Perry
<i>Associate Dean, H. Chapman, Jr., Graduate School of Business</i>	Tomislav Mandakovic
<i>Associate Dean, International Affairs and Projects</i>	Jerry Haar
<i>Assistant Dean, Communications and Public Relations</i>	Sally M. Gallion
<i>Assistant Dean, Undergraduate Advising</i>	Lynda K. Raheem
<i>Assistant Dean, Advancement, Alumni, and Corporate Relations</i>	Annabelle Rojas
<i>Director, School of Accounting</i>	Sharon Lassar
<i>Associate Director, School of Accounting</i>	Manuel Dieguez
<i>Director, Ph.D. Programs</i>	Arun Prakash
<i>Director, Executive and Professional MBA</i>	Sarah Perez
<i>Director, BBA+ Weekend and BBA+ Sunrise</i>	Donald Roomes
<i>Director of Knight Ridder Center for Excellence in Management</i>	Edward Glab
<i>Director, Center for International Business Education and Research (CIBER)</i>	Mary Ann Von Glinow
<i>Executive Director, Eugenio Pino and Family Global Entrepreneurship Center</i>	Alan L. Carsrud
<i>Director, Jerome Bain Real Estate Institute</i>	John Zdanowicz
<i>Director, Marketing and Recruiting</i>	Luis Casas
<i>Director, Budget and Administration</i>	Claudio Pico
<i>Director, Career Management Services</i>	Barry Shiflett
<i>Director, Technology Center</i>	Manoel Oliveira

Department Chairs:

<i>Decision Sciences and Information Systems</i>	Christos Koulamas
<i>Finance and Real Estate</i>	William Welch
<i>Management and International Business</i>	K. Galen Kroeck
<i>Marketing</i>	Walfried Lassar

Mission Statement

The Chapman School in the College of Business Administration exists to create enduring educational value for our students, for our alumni, and for the business, professional, and academic communities we serve.

For our students—whom we prepare to succeed in a rapidly changing, technology-driven global business environment;

For our alumni—to whom we provide opportunities for continuing professional development and a legacy that appreciates as our excellence grows;

For the business and professional communities—to whom we offer knowledgeable graduates, educational programs, research, and collaborative projects;

For the academic community—to whom we bring new knowledge through high-quality research and the development of future scholars.

The Alvah H. Chapman Jr., Graduate Business School is a school distinguished among urban public business schools as a center for global business education, technology, and research. Our most noteworthy teaching and research expertise lies in the business arenas linking South Florida, Latin America, and the world economy.

The College itself offers undergraduate, graduate, professional education, customized training, and executive education programs to enterprises around the world. While continuing to meet the needs of students in the South Florida community, we are intensifying our educational service delivery to international students and enterprises, especially those in Latin America.

In all of our programs, we strive to instill in students a profound understanding of the changing nature of international business in an integrated and digital global economy. We ensure they are well versed in the impact information technology is having on how enterprises are organized and managed and on how products and services are created and marketed. We provide them with a solid grasp of business processes, the ability to think critically and to solve problems ethically, and the sense to conduct themselves with integrity and within the context of social and environmental responsibility. We foster their commitment to life-long learning in a dynamic, complex, and competitive world.

Our faculty engage in basic and applied research and in instructional development to contribute not only to the general knowledge base in the field of business but also to the ways in which this knowledge is created and shared. The College boasts a state-of-the-art information technology infrastructure that enables us to provide leading edge instruction and research, including online course delivery. At the same time, our IT investment supports our ongoing curricular innovation in related fields like enterprise-wide computing and logistics.

Organization

The College is organized into the Alvah H. Chapman, Jr., Graduate School of Business, the School of Accounting and the Departments of Decision Sciences and Information Systems, Finance, Management and International Business, and Marketing.

The College also houses several centers of excellence dedicated to teaching, research, and service. These include the Jerome Bain Real Estate Institute, the Ryder Center for Supply Chain Systems, the Knight Ridder Center for Excellence in Management, the Office of Professional Education, the Office of Executive Education, the Global Center for Entrepreneurship and Innovation, and the Center for International Business Education and Research.

Degree Programs

Through its R. Kirk Landon Undergraduate School, the College of Business Administration (CBA) offers academic programs leading to the undergraduate degrees of Bachelor of Business Administration (BBA) and Bachelor of Accounting (BAcc). The Chapman Graduate School offers academic programs leading to the degrees of Master of Accounting (MAcc), Master of International Business (MIB), Master of Business Administration (MBA), Master of Science in Finance (MSF), Master of Science in Management Information Systems (MSMIS), Master of Science in Taxation (MST), Executive Master of Science in Taxation (EMST), Master of Science in Human Resource Management (MSHRM), Master of Science in International Real Estate (MSIRE), and Doctor of Philosophy in Business Administration (Ph.D.).

Master's Degree Programs

The Chapman Graduate School of Business aims to provide a high quality graduate educational experience rooted in our Miami location and focused on the unique requirements for doing business in a global and interconnected market.

Admission Requirements

To be eligible for admission to a Master's degree program in the Chapman School, students must:

1. Meet the general University requirements for admission to a graduate degree program;
2. Hold a Bachelor's degree from an accredited college or university;
3. Show high promise of success in graduate studies as determined by the faculty based upon a combination of the Graduate Management Admission Test (GMAT) score or the Graduate Record Exam (GRE) score and the upper-division grade point average (GPA);
4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. [Students should study the "General Admission" requirements for foreign students in the "Admissions" section of this catalog];
5. Be in good standing with all previously-attended colleges and universities.

Additional requirements vary by the degree program.

Application Procedures

To apply for admission to graduate study in the Chapman School, prospective students must:

1. Submit a Graduate Application for Admission to the Graduate Admissions Office. The application form can be accessed online at (<http://gradschool.fiu.edu>). The admission process may take as long as two months after the University receives a student's application, depending upon the time involved in obtaining transcripts and test scores. Students are encouraged to apply early.
2. Have a copy of the official transcripts of all previously-earned college or university credits sent from the formerly-attended institution(s) to the Chapman's Graduate Admissions Office. Copies submitted directly by student applicants will not be accepted.
3. Submit scores, if applicable, on the Graduate Management Admissions Test (GMAT) or Graduate

Record Examination (GRE), administered by the Educational Testing Service (ETS), Box 966, Princeton, New Jersey 08540. Scores must be submitted by the ETS. Registration forms will be mailed upon request. Have the ETS submit TOEFL scores as well, if applicable.

For additional requirements, consult individual program offices listed below.

Readmission

Students who are pursuing a graduate degree in the Chapman School but who have not completed any course at the University for three consecutive semesters (including summer) must apply for readmission. If readmitted, such students must comply with the University's and Chapman School's degree program requirements in effect at the time of readmission.

Transfer Credit

A student may receive permission to transfer up to a maximum of six semester hours of graduate credit towards his/her degree program, if:

- 1) The courses were taken at the graduate level at an accredited college or university;
- 2) The courses were not introductory or survey in nature;
- 3) The student earned grades of "B" or higher in the courses;
- 4) The courses are judged by the Department Chair, College Dean, Graduate School Dean, and program manager to be relevant to the student's graduate program;
- 5) The credits were not used toward another degree; and
- 6) The credits were completed within six years immediately preceding the College's awarding of the degree.

Credits are not transferable until the student has earned 15 semester hours in a Chapman School graduate degree program.

Degree Requirements

To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for a Master's degree;
2. Satisfy required prerequisites;
3. Meet the requirements of his or her graduate "Course of Study." This "Course of Study" is developed by the student and his or her graduate advisor or degree program director following his or her admission to a program and is approved by the appropriate Department Chair, Academic Advisor, or Program Director.
4. Complete the required courses in the specific graduate program in which he/she is enrolled.
5. Earn a minimum average of "B" (3.0) in all approved courses in the student's approved course of graduate study.

No courses in which a graduate student earns a grade below "C" may be counted towards any Master's degree program in the Chapman School. However, all approved undergraduate and graduate course work a graduate student takes will be counted in computing his or her grade point average, including courses in which he or she has earned a "D" or "F" grade. To improve a grade, please refer to the University Forgiveness Policy under General Information.

Faculty have the discretion to administratively drop students who do not attend the first class of a course.

Time Limit

All work applicable to a Master's degree, including transfer credit, must be completed within six years immediately preceding the awarding of the degree.

Study Abroad Programs

Graduate students in the College may earn a maximum of three (3) credit-hours for study abroad programs unless otherwise prescribed by their degree program.

Dual Degree Programs

The Chapman School is developing a series of dual degree programs with universities in Europe and Latin America whereby partial credit will be given by both institutions for academic work carried out in each respective program. This would lead to the possibility of obtaining two Masters degrees, one from each partner institution, in less time and with fewer credits than if the two degree programs were taken sequentially. At the present time, dual degree programs are offered through the MIB program. See below for more information.

Joint Degree Programs

Approval has been obtained for students in one of the Chapman School's Masters programs to qualify for a joint degree program with other Chapman School programs (e.g., MBA and MS in Finance) as well as with other university graduate programs (e.g., Joint MBA-JD program). See below for more information.

Scholarships

The Chapman Graduate School of Business has set aside funds from operations and donations to the School to support a limited program of scholarships destined to cover tuition and fees for our International MBA, Master of International Business, and other value-added Master's degree programs. These scholarships are highly selective and intended to further academic achievements. Interested students and candidates should address a letter indicating their circumstances to Anna Pietraszek, Associate Director of Admissions, Chapman Graduate School of Business, University Park, Miami, FL 33199. Priority will be given to students who are admitted to one of our programs and who exhibited extraordinary academic merit in addition to financial hardship.

Master of Business Administration (MBA)

The College offers five programs leading to the MBA degree. Each program is designed to meet different student needs. The MBA programs are: the Evening MBA, the Executive MBA, the International MBA, the Downtown MBA, and the Professional MBA.

An overview of each of these programs is provided below. For specific degree requirements in each program, please contact the program office or director.

Downtown Master of Business Administration

The Downtown MBA is a value-added program, designed for working professionals, providing its graduates with a firm understanding of the key skills, behaviors and techniques required for students to succeed in the marketplace. The program is a lock-step replicate of the Evening MBA Program. While courses have the same

content and duration as the MBAs', each one is delivered in an 8 week intensive manner.

The Downtown MBA provides these unique features:

- Students complete the program in eighteen months
- Classes are offered 2 evenings each week
- The campus is conveniently located Downtown, in the heart of Miami
- It provides a high level of personal service, catering to the needs of our participating executives
- Assistance in seeking full time positions upon graduation
- Professional development seminars

For additional information about the Downtown MBA program, please contact the program manager at (305) 348-3256 or visit <http://business.fiu.edu>.

Evening Master of Business Administration (EVE MBA)

The Evening Master of Business Administration (EVE MBA) program is designed to give students a general management education and to help them prepare for advancement in their business careers. Since it is an evening program, it is especially valuable for those students who work full-time during the daytime hours.

- Courses are offered Monday through Thursday evenings, and are held at the University Park Campus. The Professional Development Seminars are offered on Saturdays in the Fall and Spring terms.
- Students generally earn their MBA degree in approximately three years.
- While in the program, students may select an area of business within which to specialize: Marketing, Entrepreneurship, Human Resources, Management Information Systems, Finance, Accounting and International Business.
- There is assistance in seeking full time positions upon graduation.
- Students may also be eligible to pursue joint degree programs with the Master of Science in Finance (MBA/MSF) and the Master of Science in Management Information Systems (MBA/MSMIS), and dual degrees offered with the Law School (MBA/JD), and the Master of Arts in Latin American and Caribbean Studies (MBA/MALACS).

For additional information about the Evening MBA program, please contact the program manager, at (305) 348-3256 or address your inquiry to evemba@fiu.edu.

MBA for Public Managers

The Master of Business Administration for public managers is designed to meet the educational needs of federal, state, county, and city employees. This MBA program for public managers (MBA-PM) has been customized to satisfy the academic needs expressed to the Chapman Graduate School by leaders of Miami-Dade County and other agencies. Students enrolled in the MBA-PM will learn how to manage government as a business.

The MBA for Public Managers requires 45 hours of classroom work in a total of 15 courses, and attend a series of 3 professional development seminars (1 credit).

The MBA-PM offers these unique features:

- Complete the MBA in 19 months
- Classes are held on Fridays from 5:30 to 9:30 and Saturday s from 8:30 to 12:30 at our Downtown Center
- Learn how to manage government as a business
- Network and learn from professionals in other government agencies
- Enjoy a high level of personal service

For additional information about the MBA-PM program, please contact the program manager at (305) 577-1681 or visit <http://business.fiu.edu>.

Executive Master of Business Administration (EMBA)

The Executive Master of Business Administration (EMBA) degree program, designed for working business professionals, delivers a total graduate education experience preparing students for new and expanding responsibilities as senior-level functional or general managers. It is a rigorous, value added program that is limited to a select number of qualified students.

Program participants earn their MBA degree without interrupting their careers. Structured so that all requirements can be completed in twenty months, the program is offered on Saturdays at the MARC Building on the University Park Campus. Eight years of work experience, with five of those in management, are required for consideration.

The EMBA program incorporates these unique features:

- Complete the MBA in twenty months without interrupting your career
- Study with and learn from a diverse and highly select group of peers
- Strengthen leadership, teambuilding and interpersonal skills
- Be provided with assistance in seeking full time positions upon graduation
- Interact with top notch faculty and international business executives
- Go on an international study tour
- Enjoy a high level of personal service and support
- Build a lasting network of friends

For additional information about this value-added program, call the EMBA office at (305) 348-1036 or email emba@fiu.edu.

Professional Master of Business Administration (PMBA)

Designed for the working professional with a minimum of five years of professional work experience, the Professional MBA program offers a fast-paced, intense program in which you can network with your peers and learn from each other in a dynamic environment.

The PMBA program incorporates these unique features:

- Complete the MBA in twenty months on a Saturday only schedule
- Study close to home in the convenient FIU Pines Center in Pembroke Pines
- Study with, learn from and network with a diverse group of peers in a lock-step program

- Strengthen leadership, teambuilding and interpersonal skills
- Be provided with assistance in seeking full time positions upon graduation

For additional information about this value-added program, call the PMBA office at (305) 348-1036 or email pmba@fiu.edu.

International Master of Business Administration (IMBA)

The IMBA (International MBA) degree program features an MBA curriculum with an international business focus. This value-added program has been especially designed for students and professionals interested in pursuing a career in international business. For students from outside the U.S., it represents an opportunity for them to prepare for executive positions in the U.S. as well as in other parts of the world. For students in the U.S. who would like to pursue business leadership in international businesses, it provides an integrated perspective of international business issues and the knowledge they need to succeed in a rapidly evolving, global economy.

Given the Chapman School's Miami location and expertise in Latin American and Caribbean business, the program is particularly valuable for those who want to secure executive positions in the Americas.

The IMBA program incorporates these unique features:

- An MBA curriculum that can be completed in 12 months
- Day-time classes five days per week
- Global and multicultural perspective throughout
- Language classes in Spanish, Portuguese, Mandarin Chinese, and Advanced Business English for non-native speakers
- Assistance in seeking internships and full time positions upon graduation
- Opportunity to participate in study abroad programs and attend university seminars on global business issues
- Frequent interaction with senior executives involved in international business
- Professional development seminars focused on leadership, team-building skills, oral and written presentation skills, and career preparation

Students may also be eligible to pursue joint degree programs with the Master of Science in Finance (MBA/MSF), the Master of Science in Management Information Systems (MBA/MSMIS), the Law School (MBA/JD), and the Master of Arts in Latin American and Caribbean Studies (MBA/MALACS).

For more detailed information about the IMBA program, please contact the program manager, at (305) 348-6880 or by email imba@fiu.edu.

Master of International Business (MIB)

The MIB program is a specialized degree focused on the key skills, behaviors and techniques required for students to succeed in the international marketplace. Although global in nature, it emphasizes the knowledge and abilities that are specific to doing business in The Americas. It is aimed at people who already possess a significant business background (academic and/or practical), and

who wish to deepen their understanding of international business practices and opportunities.

MIB students also benefit from studying in South Florida, particularly since Miami is a major center for international trade and finance and a gateway linking the Americas to the world. The MIB faculty is adept at blending theoretical understanding with practical application. A variety of teaching/learning approaches—including case studies, lectures, team projects and presentations, executive guest lectures, and simulations—keep classes relevant and interesting. The global character of the MIB program is inherent in its curriculum and in the diverse nationalities of the students enrolled in it. Because of the diversity of our student body, students continually share and learn from their multinational perspectives and experiences. In addition to the international business expertise of its faculty, the program features lectures and seminars by multinational, foreign, and U.S.-based corporate business leaders.

Its key features include:

- The only international degree in the College of Business Administration (CBA) in which participants are required to have a business background
- Emphasis on the global aspect of business
- Participation in seminars, conferences and field trips conducted by the *Knight Ridder Center for Excellence in Management* and the Global Entrepreneurship Center
- Possibility of earning a second (MBA) degree at one of our partner institutions
- Participation in a series of workshops focused on leadership, interpersonal and communication skills
- A high level of personal service and support
- Assistance in seeking internships and full time positions upon graduation

For additional information about the MIB program please contact the program manager at (305) 348 3279 or by email mib@fiu.edu.

Dual-Degree Students

Students from our international partner schools have the opportunity to earn a dual degree: an MBA from their home institutions and an MIB from Florida International University. Students in this program complete one year towards their MBA degree at their home institutions, and then attend the MIB program during their second year to complete both degrees. Students in the program also have the opportunity to remain in the U.S. for an additional twelve months under the Optional Training Program.

For more information about this program, please contact the program manager at (305) 348-3279 or by email to mib@fiu.edu.

Other Master's Programs

The Chapman School offers a variety of Master of Science and professional master's degree programs: Master of Accounting; Master of Science in Taxation; Master of Science in Finance; Master of Science in Management Information Systems, Master of Science in Human Resource Management, and Master of Science in International Real Estate. For more information about these programs, please go to the respective departmental

pages in the catalog or visit us at: <http://www.business.fiu.edu>.

Ph.D. Program

The Chapman School offers a Ph.D. in Business Administration. The objective of this degree program is to prepare students for a career in academia by building their understanding of the substantive domains and literature within their selected areas of concentration. It provides them with the methodological and analytical tools required for executing research and creating knowledge. It develops their skills in formulating, conducting, and communicating quality research. In the process, it also fosters their ability to teach effectively.

The Ph.D. program typically requires a minimum of four years of full-time study: two-and-a-half years of coursework and summer projects and a year-and-a-half of dissertation research. Students will take a minimum of 16 courses (with a minimum of six courses in their chosen area of concentration). Students also will complete summer research projects under faculty supervision.

Areas of Concentration

Accounting, Management Information Systems, Marketing, Finance, Management, which includes the sub-areas:

- Strategic Management
- Entrepreneurship
- International Business and International Management
- Human Resource Management
- Organizational Behavior
- Hospitality Management

Admission Requirements

All qualified students are encouraged to apply to the program, regardless of their sex, age, race, color, creed, handicap, marital status, or national or ethnic origin. Applications are accepted from prospective students with a broad variety of educational backgrounds, including areas like business, liberal arts, and the sciences. Those students selected for the Ph.D. program must demonstrate strong evidence of ability, scholarly interest, and success. Applicants should submit the following:

1. A completed application form and processing fee.
2. Three letters of recommendation.
3. Official transcripts from all institutions in which the applicant has completed any undergraduate and graduate course work. Applicants are expected to have at least a 3.0 GPA in their coursework.
4. A report from the Educational Testing Service giving the applicant's score on the Graduate Management Admissions Test (GMAT) or Graduate Record Exam (GRE). Entering students are expected to score a minimum of 570 on the GMAT or 1120 (combined verbal and quantitative) on the GRE.
5. A formal statement of purpose for seeking the doctoral degree and specific reasons for applying to Florida International University.
6. A curriculum vitae.
7. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. Such applicants also should review the "General Admission Requirements for

Foreign Students" in the "Admission" section of this catalog.

The College admits a new class of doctoral students every other year during the Fall semester.

Complete applications must be received by March 1. Acceptance decisions typically will be made in April, for admission in the Fall semester.

Applicants are considered once all the required documents have been received.

Degree Requirements

General degree requirements for all candidates for a Ph.D. in Business Administration include:

1. Successful completion of all required coursework.
2. Successful completion of a comprehensive examination at the end of this coursework.
3. Successful completion of a doctoral dissertation.

Financial Aid

Applicants to the doctoral program may request financial aid by completing the appropriate form. Stipends requiring a mixture of research and teaching are also available. These stipends may include both a cash award and a tuition waiver, depending upon the applicant's qualifications. If you wish to apply for a stipend include this request with your application documents.

Note: The programs, policies, requirements, and regulations listed in this catalog are subject to continual review in order to meet the needs of the University's various publics and to respond to the mandates of the State Board of Education and the Florida Legislature. Changes may be made without advance notice. Please refer to the "General Information" section of this catalog for the University's policies, requirements, and regulations.

For more information please refer to our website: <http://business.fiu.edu> or call (305) 348-1746.

Master of Business Administration/Master of Arts in Latin American and Caribbean Studies Joint Degree Program

The Alvah H. Chapman Jr. Graduate School of Business and the Latin American and Caribbean Center at Florida International University have approved a joint degree program culminating in both a Master of Business Administration degree (MBA), awarded by the College of Business Administration, and a Master of Arts in Latin American and Caribbean Studies degree (MALACS), administered by the Latin American and Caribbean Center (LACC) for the College of Arts and Sciences. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will, of course, be able to indicate this intention only on their second application.

2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. Business Administration students must

apply and be admitted by no later than the semester in which they are expected to complete 18 pre-core and core credit hours in the MBA program. MALACS students must apply and be admitted by no later than the semester in which they are expected to complete 18 credit hours in that program.

3. Candidates must satisfy all requirements for each degree. Twelve (12) credit hours from the MBA curriculum pre-core and core requirements may count toward the MALACS degree to satisfy MALACS concentration requirements. Nine (9) credit hours from the MALACS course offerings may be applied to satisfy MBA elective requirements. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MALACS courses transferred to meet MBA elective credit must be 6000 or 7000 level courses approved by the University Curriculum Committee and be from the approved MALACS course list in the social science disciplines of anthropology, economics, environmental studies, history, international relations, Latin American and Caribbean Studies (interdisciplinary), political science, or sociology. The Dean of the Chapman Graduate School of Business (or his/her delegate) has final authority on the approval of which courses may be transferred to meet MBA elective requirements.

4. Based on existing MBA and MALACS curriculums, specifics on the transfer of credits between include the following. Participants in the joint degree program will obtain a MALACS concentration in International Business. Four MBA pre-core or core courses (12 credits) may be transferred to meet the student's MALACS concentration requirements. Students who have not taken MAN 6910 Research Methods in Management as an MBA elective course will be required to take a MALACS-approved social science research methods course as one of their first MALACS courses. With the 12 credit transfer from the MBA program, to obtain the MALACS degree, the student will be required to take the MALACS gateway interdisciplinary course LAS 6003 Survey of Latin America and the Caribbean (3 credits), the MALACS required data analysis course LAS 6930 Latin American and Caribbean Data Analysis (3 credits), one additional course in the MALACS concentration of International Business (the social science research methods course may meet this requirement) (3 credits), three additional courses in at least two MALACS concentrations other than International Business (9 credits), and a MALACS graduation exit option (6 credits), for a total of 24 MALACS credits. Candidates for the MALACS degree must also meet MALACS language proficiency requirements. With the 9 credit transfer from the MALACS program, to obtain the MBA degree, the student will be required to take all MBA pre-core, core, and professional development seminar courses, plus one MBA elective, for a total of 46 MBA credits. Directors of the MBA and MALACS degree programs may adjust the exact course numbers and titles required for degree completion as a result of future changes to the MBA or MALACS curriculums.

5. If the joint degree candidate chooses the thesis exit option for the MALACS degree, the thesis must address a Latin American or Caribbean business or management issue. The thesis committee must be chaired by a College of Arts and Sciences faculty member. Furthermore, the thesis committee must have at least one

member from both the College of Business Administration and College of Arts and Sciences. Thesis committee co-chairs with faculty members from both colleges are recommended. Candidates selecting a MALACS exit option other than the thesis must follow the procedures established by the MALACS program. MALACS will establish the necessary thesis, internship, independent study, or directed research course numbers to allow Graduate School of Business faculty to participate in MALACS exit options for joint degree students.

6. Candidates accepted to the joint degree program may begin their studies in either program first. All candidates must register for classes during the regular registration period for the respective program. Additionally, joint degree students must register for a course or courses in their second degree no later than the semester commencing the second half of their first degree program.

7. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate. Subject to prior approval, graduate students are normally allowed six (6) credit hours from graduate level courses offered by other units of the University as counting toward single degrees.

8. Candidates in the joint degree program will be eligible for the graduate teaching assistantships, graduate research assistantships, and scholarships in the Chapman Graduate School of Business and LACC on the same basis as other graduate students, subject to the guidelines and restrictions set by either program.

9. Future changes to the joint MBA/MALACS degree program must be endorsed by the College of Business Administration Faculty Curriculum Committee and Dean of the Chapman Graduate School of Business; the College of Arts and Sciences Faculty Curriculum Committee and Dean of the College of Arts and Sciences; and approved by the University Curriculum Committee, Graduate Council, the Faculty Senate, Dean of the University Graduate School, and the Provost.

For additional information, contact the Evening MBA offices at (305) 348-5256 or the Latin American and Caribbean Center (LACC) at (305) 348-2894.

Master of Business Administration/ Jurisprudence Doctorate

Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

1. Candidates for the program must meet the entrance requirements for and be accepted by both Colleges. Both Colleges must be informed by the student at the time of application to the second program that the student intends to pursue the joint degree.

2. The joint degree program is not open to students who have already earned one degree.

3. For law students, enrollment in the MBA program is required no later than the completion of 63 credit hours in the JD program. For MBA students, enrollment in the JD program is required no later than the third semester after beginning the MBA program. For purposes of this

paragraph, a summer session is counted as half a semester.

4. A student must satisfy the curriculum requirements for each degree before either degree is awarded. The College of Business Administration will allow 12 credit hours of upper level business and commercial law courses to be credited toward both the M.B.A. and J.D. degrees. These 12 credit hours of law classes will be in lieu of the Legal Environment of Business course (3 credit hours) and three of the elective courses (totaling 9 credit hours) required for the M.B.A. degree. A student may obtain a concentration in the M.B.A. program in accordance with the College of Business Administration curriculum requirements for concentrations. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the J.D. degree for courses taken in the M.B.A. curriculum upon completion of the M.B.A. degree curriculum with a grade point average of 3.0 or higher.

5. A student enrolled in the joint degree program may begin the student's studies in either College, but full-time law students must take the first two semesters of law study consecutively and part-time law students must take the first three semesters of law study consecutively. Students admitted to one College but electing to begin study in the other College under the joint degree program may enter the second College thereafter without once again qualifying for admission so long as they have notified the second College before the end of the first week of the first semester in the second College and are in good academic standing when studies commence in the second College.

6. A student enrolled in the joint degree program will not receive either degree until the student has satisfied all of the requirements for both degrees, or until the student has satisfied the requirements of one of the degrees as if the student had not been a joint degree candidate.

7. Students in the joint degree program will be eligible for the graduate teaching assistantships and research assistantships in the College of Business Administration on the same basis as other MBA students, subject to the guidelines and restrictions set by the College of Business Administration.

For additional information, contact the Evening MBA offices at (305) 348-3256 or the Law School Admissions Office at (305) 348-8006.

Master of Science in Finance/Master of Business Administration Joint Degree Program

The Department of Finance and the MBA program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University offer a joint degree program culminating in both a Master of Business Administration degree (MBA), and a Master of Science in Finance degree (Fast Track-MSF). Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree program uses existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate in the

application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.

2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or Fast Track-MSF students must apply and be admitted by no later than the second to last semester in which they are expected to complete their original degree requirements.

3. Candidates must satisfy all requirements for each degree. To obtain the MSF degree, the student will be required to take eleven (11) finance courses. This includes the two finance courses in the MBA core program, plus nine finance courses from the MSF fast track program, for a total of 33 credit hours. Three of the nine MSF courses will be used to satisfy part of the elective requirements of the MBA program. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements. The two degrees will have 5 common courses. Courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSF courses transferred to meet MBA elective credit must be 6000 level courses approved by the University Curriculum Committee. Directors of the MBA and MSF degree programs may adjust these exact course requirements as a result of future changes to the MBA of MSF curriculums.

4. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.

5. The joint degree program will begin with the Spring 2004 semester.

6. With the joint degree program students will take a total of 73 credit hours to get both degrees. Without the joint degree program students will need to take 88 credit hours to get both degrees. Thus, MBA students who have taken nine credits of MSF fast track common courses may obtain an MSF degree with only an additional 18 credits. MSF students who have taken six credits of MBA core finance courses may obtain an MBA degree with only an additional 40 credits.

For additional information, contact the Evening MBA Office at (305) 348-3256 or the Master of Science in Finance Office at (305) 348-4198.

Master of Science in Management Information Systems/Master of Business Administration Joint Degree Program

The Department of Decision Sciences and the MBA program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University offer a joint degree program culminating in both a Master of Business Administration (MBA), and a Master of Science in Management Information Systems degree (MSMIS). Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree program will use existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.

2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or MSMIS students must apply and be admitted no later than the second to last semester in which they are expected to complete their original degree requirements.

3. Candidates must satisfy all requirements for each degree. To obtain the MSMIS degree, the student will be required to take twelve (12) MIS courses. This includes the one MIS course in the MBA core program, plus eleven MIS courses from the MSMIS program, for a total of 36 credit hours. Four of these eleven MSMIS courses will be used to satisfy part of the elective requirements of the MBA program. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements. The two degrees will have five common courses. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSMIS courses transferred to meet MBA elective credit must be 6000 level courses approved by the University Curriculum Committee. Directors of the MBA and MSMIS degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSMIS curriculums.

4. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.

5. With the joint degree program students will take a total of 76 credit hours to get both degrees. Without the joint degree program students will need to take 91 credit hours to get both degrees. Thus, MBA students who have taken twelve credits of MSMIS common courses may obtain an MSMIS degree with an additional 21 credits. MSMIS students who have taken three credits of a MBA core MIS course may obtain an MBA degree with only 40 credits.

For additional information, contact the Evening MBA office at (305) 348-3256 or the MSMIS Office at (305) 348-6852.

Master of Science in International Real Estate/Master of Business Administration Joint Degree Program

The Department of Finance and the Master of Business Administration program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University have a joint degree program culminating in both a Master of Business Administration degree (MBA), and a Master of Science in International Real Estate degree (MSIRE). Under the joint degree program, a student can obtain both degrees in less time than it would take to obtain both degrees if pursued consecutively. The joint degree program will use existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.

2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or MSIRE students must apply and be admitted prior to or concurrent with the last semester in which they are expected to complete their original degree requirements.

3. Candidates must satisfy all requirements for each degree. To obtain the MSIRE degree, the student will be required to take ten (10) finance courses totaling 30 hours as required by the program. This includes two finance courses, FIN 6428 Corporate Finance and FIN 6644 Global Financial Strategy, included in the MBA (and required by all the individual MBA programs) which are also required by the MSIRE Program, plus five real estate core courses in the MSIRE Program, plus two real estate (REE prefix) electives and an additional graduate course approved by the Program Director.

4. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements for the specific MBA program in which they are also enrolled including the three 3-credit hour pre-requisites, ten 3 credit core courses, four 1-credit seminars, and four 3-credit hour electives, for a total of 55 credit hours. Two finance courses are specifically required by both programs. In addition, two of the real estate (REE prefix) courses in the MSIRE may be considered as partially satisfying the elective requirements of the MBA program. The two degrees will have 4 common courses.

5. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSIRE courses transferred to meet MBA elective credit must be 6000 level courses. Directors of the MBA and MSIRE degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSIRE curriculums.

6. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.

7. With the joint degree program students will take a total of 73 credit hours to get both degrees. Without the joint degree program students would need to take 85 credit hours to earn both degrees. A maximum of 12 credit hours or four courses will be double counted for both degree programs. This means that a MBA student will be required to take a minimum of six courses or 18 additional credit hours above the requirements for the MBA Program to earn both degrees. Similarly, a student of the MSIRE must satisfy an additional 43 credit hours in order to earn both degrees.

Master of Science in Human Resource Management/Master of Business Administration Joint Degree Program

The Department of Management & International Business and the Alvah H. Chapman Jr. Graduate School of Business at Florida International University have a joint

degree program culminating in both a Master of Business Administration degree (MBA), and a Master of Science in Human Resource Management (MSHRM). This joint degree would follow the same structure that was established by the two dual degrees currently approved by the University, that is, the MSF/MBA and MSMIS/MBA Programs. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree program will use existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the joint degree student contract the intention to pursue both programs. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention by completing the request to enter a joint degree program.

2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or MSHRM students must apply and be admitted no later than the second to last semester in which they are expected to complete their original degree requirements.

3. Candidates must satisfy all requirements for each degree:

a. To obtain the MSHRM degree, the student will be required to take twelve (12) 3-credit HR courses. This includes the existing HR Strategy course (MAN 6385) – which can replace the Strategic Management course in the core MBA curriculum (MAN 6726) – plus eleven HR courses from the MSHRM program, for a total of 36 credit hours. Four of these eleven MSHRM courses will be used to satisfy the elective requirements of the MBA program.

b. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements, that is, three prerequisites (9 credits unless waived), four one-credit seminars, ten 3-credit core courses and four 3-credit electives, for a total of 46-55 credits depending on prerequisites.

c. Two degrees will have five common courses. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSHRM courses transferred to meet MBA elective credit must be 6000 level courses approved by the University Curriculum Committee. Directors of the MBA and MSHRM degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSHRM curriculums.

4. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all degree requirements for the first program as if the student had never been a joint degree candidate.

5. With the joint degree program students will take a total of 67-76 credit hours (depending on prerequisites) to get both degrees. Without the joint degree program students would need to take 82-91 credits hours (depending on prerequisites) to get both degrees. Thus,

MBA students who have taken twelve credits of MSHRM common courses may obtain an MSHRM degree with an additional 21 credits. MSHRM students who have taken three credits of an MBA core MSHRM course may obtain an MBA degree with only 40 credits.

Combined BS in Mechanical Engineering/MBA Program

Students who pursue a BS degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three MME faculty members, apply to the department to enroll in the combined BS/MBA program. Students must also submit an on-line application to the University Graduate School for admission to the MBA program. Students applying to the combined program are not required to pay the application fee. In addition to the admission requirements of the combined BS/MBA program, students must meet all the admission requirements of the University Graduate School and those of the College of Business Administration.

The MBA curriculum at the Chapman Graduate School of Business consists of 9 credit hours of pre-core courses, 31 credit hours of core courses, 3 credit hours of professional development seminars, and 12 credit hours of elective courses, for a total of 55 credit hours.

The pre-core of 9 credit hours may be considered for waiver based on prior course work or exemption exams. An evaluation will be conducted at the time of admission to determine eligibility for a waiver by the MBA program graduate advisor.

In addition, students can count up to three MME graduate courses as credits for both the BS electives and the MBA electives, for a total savings of 9 credit hours. The following is a list of eligible MME graduate courses:

EML 5927	Professional Development and Leadership for Mechanical Engineers
EML 5555	Special Projects in Mechanical Engineering Design and Business Development*
EML 6908	Independent Studies*

*These courses should have management, decision making and/or cost estimating components.

The combined BS/MBA program has been designed to be a continuous program. During this combined BS/MBA program, upon completion of all the requirements of the undergraduate program, students will receive their BS degree. Students may also elect to permanently leave the combined program at any time and earn only the BS degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 credit hours in both the BS and MBA degrees.

For each of the graduate courses counted as credits for both BS and MBA degrees, a minimum grade of "B" is required. Students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the MBA program graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Final

decision for admission to the MBA program will be made by the University Graduate School upon recommendation by the College of Business Administration. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Combined BS in Civil Engineering/MBA Program

Students, who pursue a BS degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three CEE faculty members, apply to the department to enroll in the combined BS/MBA program. Students must also submit an on-line application to the University Graduate School for admission to the MBA program. Students applying to the combined program are not required to pay the application fee. In addition to the admission requirements of the University, Graduate School, and those of the College of Business Administration.

The MBA curriculum at the Chapman Graduate School of Business consists of 9 credit hours of pre-core courses, 31 credit hours of core courses, 3 credit hours of professional development seminars, and 12 credit hours of elective courses, for a total of 55 credit hours.

The pre-core of 9 credit hours may be considered for waiver based on prior course work or exemption exams. An evaluation will be conducted at the time of admission to determine eligibility for a waiver by the MBA program graduate advisor.

In addition, students can count up to three CEE graduate courses as credits for both the BS electives and the MBA electives, for a total savings of 9 credit hours. The following is a list of eligible CEE graduate courses:

CCE 5035	Construction Engineering Management
CCE 5036	Advanced Project Planning for Civil Engineers
CCE 5505	Computer Integrated Construction Engineering
CGN 5315	Civil Engineering Systems
CGN 5320	GIS Applications in Civil and Environmental Engineering
CGN 5930	Special Topics*
ENV 5007	Environmental Planning
ENV 5008	Appropriate Technology for Developing Countries
ENV 5105	Air Quality Management
ENV 5659	Regional Planning Engineering
ENV 5666	Water Quality Management
ENV 5905	Independent Study*
ENV 5930	Special Topics in Environmental Engineering*
TTE 5007	Transportation Systems in Developing Nations
TTE 5015	Fundamentals of Traffic Engineering
TTE 5100	Transportation and Growth Management
TTE 5606	Transportation Systems Modeling and Analysis
URP 5312	Urban Land Use Planning
URP 5316	Environmental and Urban Systems

*These courses should have management, decision making and/or cost estimating components.

The combined BS/MBA program has been designed to be a continuous program. During this combined BS/MBA

program, upon completion of all requirements of the undergraduate program, students will receive their BS degrees. Students may also elect to permanently leave the combined program at any time and earn only the BS degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 credits in both the BS and MBA degrees.

For each of the graduate courses counted as credits for both BS and MBA degrees, a minimum grade of "B" is required. Students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the MBA graduate program advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Final decision for admission to the MBA program will be made by the University Graduate School upon recommendation by the College of Business Administration. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

School of Accounting

Sharon Lassar, *Associate Professor and Director*

Abhijit Barua, *Assistant Professor*

Lucia Chang, *Professor Emeritus*

Yunhao Chen, *Assistant Professor*

Lewis F. Davidson, *Professor and Faculty Director, MACC Program*

Renu Desai, *Assistant Professor*

Manuel Dieguez, *Lecturer and Associate Director*

Mort Dittenhoffer, *Professor Emeritus*

Wendy Gelman, *Instructor*

Charles Goldman, *Visiting Instructor*

C. Delano Gray, *Instructor*

Cherie J. Hennig, *Professor and Faculty Director, EMST Program*

Kenneth Henry, *Lecturer*

Stephen W. Lin, *Associate Professor*

Antoinette Lynch, *Assistant Professor*

Adam Maiga, *Assistant Professor*

Robert McGee, *Associate Professor and Director, Center for Accounting, Auditing, and Tax Studies*

Kenneth S. Most, *Professor Emeritus*

Felix Pomeranz, *Professor Emeritus*

Kannan Raghunandan, *Professor and Ryder Eminent Scholar*

Dasaratha V. Rama, *Professor and Knight Ridder Center Research Fellow*

Leonardo Rodriguez, *Professor Emeritus and Faculty Director, MACC-ITAM Program*

Andrew Sbaraglia, *Visiting Assistant Professor*

Divesh Sharma, *Associate Professor*

Vineeta Sharma, *Visiting Assistant Professor*

Blaise M. Sonnier, *Clinical Assistant Professor*

Krishnamurthy Surysekar, *Associate Professor*

Thomas J. Tarangelo, *Visiting Instructor*

H. Steven Vogel, *Visiting Instructor*

Changjiang (John) Wang, *Assistant Professor*

Clark Wheatley, *Associate Professor and Faculty Director Professional MBA Program and SunTrust Professor*

John Wrieden, *Distinguished Senior Lecturer*

Participating Adjunct Faculty

John Cox

Purpose

Our mission as a School of Accounting in an internationally-focused public research university is to:

- Foster an environment of intellectual curiosity, diversity of thought, and integrity;
- Provide a diverse student body with excellence in accounting education in order to succeed as business professionals and leaders as well as valued members of society;
- Prepare students for advancement in the accounting profession through specialized masters programs that strengthen professional competencies;
- Serve the academic community through scholarly research, colloquia, and the training of future accounting educators;
- Promote opportunities for professional development, lifelong learning and networking for our alumni and accounting professionals in the local, national and global community.

Master's Degree Programs

The School of Accounting offers three graduate degree programs: Master of Accounting, Master of Science in Taxation, and Executive Master of Science in Taxation. The programs are designed for students who have completed an undergraduate degree in accounting, or the equivalent, from a regionally accredited college or university. The Director of the School of Accounting will determine the equivalency of students' undergraduate degrees.

Students whose undergraduate degrees are in majors other than accounting will be required to make up for any business and/or accounting deficiencies. The Director of the School must approve programs of study for students seeking to correct such deficiencies.

All students taking graduate accounting and tax courses must be fully admitted to one of the graduate accounting programs or have written permission from the Director of the School. Registration for all such course work must be made through the appropriate College advisor.

Special Program Requirements

A student with a degree in business who is admitted into the Master of Accounting (MACC) program may be required to complete up to 8 accounting pre-core courses (24 credit hours), to be selected from the following three credit-hour courses:

ACG 4101	Financial Accounting I
ACG 4111	Financial Accounting II
ACG 4201	Financial Accounting III
ACG 4651	Auditing
ACG 4401	Accounting Information Systems
ACG 4341	Management Accounting and Control
BUL 4320	Business Law I
BUL 4321	Business Law II
TAX 4001	Income Tax Accounting
TAX 4011	Taxation of Corporations and Partnerships

A student with a non-business degree who is admitted to this program will be required to complete, in addition to the pre-core courses listed above, the core courses for the Evening MBA program or equivalent undergraduate courses. MAN 6726 (Strategic Management) must be taken under either option.

Master of Accounting (MACC)

The Master of Accounting degree program prepares students for a career in accounting. For those already pursuing such a career or who are seeking to change careers to one in accounting, the program offers excellent preparation as well. The program satisfies the 30 semester hours beyond a Bachelor's degree required for the CPA examination.

Depending on a student's interests, he or she will prepare for a variety of careers:

Careers

Financial Accounting/ Auditing	Independent accountant in public accounting
Systems	Accounting systems, consultant, auditor, corporate officer, or public accountant

Internal Auditing	Internal auditor, industry or government
Corporate Management Accounting	Internal accountant or corporate officer

Degree Requirements

Students pursuing a MACC with any of the concentrations listed above must complete the following requirements:

Accounting Core

ACG 6176	Evaluation of Financial Reports, Business Analysis and Valuation
ACG 6437	Advanced Accounting Information Systems

Unless approved in advance by the Director of the School, these required courses cannot be transferred.

Electives

Electives (eight courses) must be selected from the following two groups of courses:

1. No more than two courses from this list:

TAX 6065	Tax Research Practice and Procedure
TAX 6105	Taxation of Corporations I
TAX 6205	Partnership Taxation

2. Additional 6000-level courses, approved by the Director, School of Accounting, with a minimum of four courses (12 credit hours) in a single concentration selected from a) financial accounting/auditing; b) systems; c) internal auditing; or d) corporate/management accounting

Master of Accounting (MACC), value-added track

The Master of Accounting (MACC), value-added track, is a 10-month, 10-course program tailored to address the needs of working professionals who wish to obtain the degree in an accelerated time span. The program is a tuition-plus-fee offering. The financial and assurance cohorts are offered on Saturdays with enrollments commencing in the Fall and Spring.

Financial and Assurance Emphasis Cohorts:

ACG 6176	Evaluation of Financial Reports, Business Analysis and Valuation
ACG 6437	Advanced Accounting Information Systems
TAX 6026	Value-Added Tax Strategies for Business Decisions
ACG 6466	Accounting Enterprise Resource Planning
ACG 6406	Accounting Data Warehousing and Analysis
ACG 6625	Information Technology Auditing
ACG 6257	Global Accounting, Auditing and Financial Strategy
ACG 6686	Fraud Examination
ACG 6657	Environment of Accounting and Auditing
ACG 6225	Value Added Accounting Practices in Strategic Business Decisions

Financial with Systems Emphasis Cohort:

This cohort is offered weekday evenings. The program has one course different from the Financial and Assurance Emphasis. ACG 6405 Seminar in Accounting Information

Systems I (emphasizing system security, control, legal and ethical compliance) is substituted for ACG 6657 Environment of Accounting and Auditing.

With prior approval of the Faculty Director of the program and the Director of the School of Accounting, one course may be substituted with another 6000-level course.

Computer Requirements

All MACC students are expected to own a laptop computer with wireless capability. You must have a laptop computer in order to begin your studies. A list of minimum requirements is available at <http://business.fiu.edu> or by contacting the program office at (305) 348-7662.

Graduate Certificate in Accounting (GCA)

Admission

Students will be admitted to the Graduate Certificate program only in the Fall and Spring. The applicant must have an undergraduate GPA 2.75 or better. If the undergraduate major is not accounting, the students would have to first complete any accounting prerequisites necessary to allow them to take the courses listed below. If the undergraduate major is not business, the students would have to complete the common body prerequisites for general business as well. If students wish to sit for the CPA exam, they will need a total of 36 semester hours of accounting and 39 hours of general business including six hours of business law.

If a student has completed 12 hours in the certificate with a 3.25 or better GPA he/she may be admitted to the MACC degree program without taking the GRE or GMAT examination as long as the undergraduate GPA was between 2.75 and 3.0. Eligible students would have to apply and be admitted to the MACC before taking any additional courses in order to have the additional courses be counted to both the certificate and the MACC. The decision on the acceptability of the Graduate Certificate credits would be made by the Graduate Program Director.

Courses

ACG 6176	Evaluation of Financial Reports, Business Analysis and Valuation
ACG 6437	Advanced Accounting Information Systems
TAX 6026	Value-Added Tax Strategies for Business Decisions
ACG 6466	Accounting Enterprise Resource Planning
ACG 6406	Accounting Data Warehousing and Analysis
ACG 6625	Information Technology Auditing

These courses are currently part of the MACC degree and students eligible to shift to the Masters program would do so with no loss of credits. Because of the manner in which the MACC is scheduled, potentially eligible students would have to apply for the MACC after the first two courses, with the decision to admit or not coming after grades are turned in for the second pair of courses. For additional information about the program, contact the program manager at (305) 348-7662.

Master of Science in Taxation (MST)

The Master of Science in Taxation program prepares students for entry and advancement in the specialized

area of taxation. The program satisfies the 30 semester hours beyond a Bachelor's degree required for the CPA examination.

The Director of the School of Accounting must approve students' programs of study.

Degree Requirements

Tax Core	12 hours
Electives	18 hours

Tax Core

TAX 6065	Tax Research Practice and Procedure
TAX 6105	Taxation of Corporations I
TAX 6405	Estate and Gift Taxation
TAX 6875	Current Developments in Taxation

Electives

Six additional 6000-level courses approved by the Director, School of Accounting, three of which must be tax courses (excluding TAX 6005, and TAX 6935).

Note: Students admitted to the MST program who wish to sit for the CPA exam and who are required to complete deficiencies in undergraduate accounting by completing the accounting pre-core courses are not required to take TAX 4001, Income Tax, as part of the Accounting Pre-Core.

Florida CPA Requirement

Completing a Bachelor of Business Administration with a concentration in Accounting does not alone meet the Florida State Board of Accountancy requirements for the CPA exam. With a carefully-planned program of study, a student who earns either a MACC or an MST will be qualified to sit for the CPA exam and, upon completing it successfully, will be certified in the State of Florida. There is no additional experience requirement.

Executive Master of Science in Taxation (EMST)

The Executive Master of Science in Taxation (EMST) degree program is a special thirty (30) credit, 12 month program tailored to the needs of working professionals desiring a graduate degree in an accelerated time span. Imbedded in the schedule are "mini-breaks" to accommodate the busy tax seasons occurring around March 15, April 15, September 15, and October 15. The program, which is a tuition-plus-fee offering, is also designed to satisfy the additional thirty semester hours beyond the Bachelor's degree for the CPA examination.

Six Required Three (3) Credit Courses:

TAX 6065	Tax Research, Practice & Procedures
TAX 6876	Transactions in Property
TAX 6107	Federal Corporate Taxation
TAX 6026	Value-Added Tax Strategies for Business Decisions
TAX 6206	Taxation for Pass-Through Entities
TAX 6446	Wealth Transfers
TAX 6115	Taxation of Corporations II

Three Required One (1) Credit Courses:

MAN 6356	PDS I, Professional Development Seminar I
MAN 6357	PDS II, Professional Development Seminar II
MAN 6358	PDS III, Professional Development Seminar III

Three Required One (1) Credit Courses:

Select any three of the following courses, subject to availability:

TAX 6115	Taxation of Corporations II
TAX 6305	State & Local Taxation
TAX 6507	Principles of International Taxation
TAX 6515	International Taxation II
TAX 6805	Tax Policy
TAX 6835	Taxation of Deferred Compensation
TAX 6875	Current Developments in Taxation
TAX 6877	Seminar in Taxation
TAX 6905	Independent Study in Taxation

For additional information about this program, contact the program manager, at (305) 348-7662.

Graduate Certificate in Taxation (GCT)

Admission

Students will be admitted to the Graduate Certificate program only in the Fall and Spring. The applicant must have an undergraduate GPA 2.75 or better. If the undergraduate major is not accounting and the student wishes to sit for the CPA examination, the student would have to first complete any accounting prerequisites necessary to allow him/her to take the courses listed below. If the undergraduate major is not business, the students would have to complete the common body prerequisites for general business as well. If students wish to sit for the CPA exam, they will need a total of 36 semester hours of accounting and 39 hours of general business including six hours of business law.

If the student with an undergraduate business degree does not plan to take the CPA examination, he/she would have to take ACG 4101 Financial Accounting I and TAX 4001 Income Tax Accounting prior to starting the Certificate classes. If the student with the non business undergraduate degree does not plan to take the CPA examination she/he would have to complete the courses in the Business minor.

If a student has completed the four required courses (TAX 6065, TAX 6876, TAX 6107, and MAN 6356) in the certificate with a 3.25 or better GPA he/she may be admitted to the EMST degree program without taking the GRE or GMAT examination as long as the undergraduate GPA was at least 2.75. Eligible students must apply and be admitted to the EMST before taking any additional courses in order to have the additional courses be counted to both the certificate and the EMST. The decision on the acceptability of the Graduate Certificate credits will be made by the Graduate Program Director.

Required Courses (10 credits)

TAX 6065	Tax Research, Practice and Procedures	3
TAX 6876	Transactions in Property	3
TAX 6107	Federal Corporate Taxation	3
MAN 6356	PDS I, Professional Development Seminar I	1

Plus, **THREE** of the following three credit courses, subject to availability:

TAX 6026	Value-Added Tax Strategies for Business Decisions
TAX 6206	Taxation of Pass-Through Entities
TAX 6305	State and Local Taxation
TAX 6446	Wealth Transfers
TAX 6507	Principles of International Taxation
TAX 6515	International Taxation II

TAX 6805	Tax Policy
TAX 6835	Taxation of Differed Compensation
TAX 6875	Current Developments in Taxation
TAX 6877	Seminar in Taxation
TAX 6905	Independent Study in Taxation

Plus, ONE of the following one credit courses, subject to availability:

MAN 6357	PDS II, Professional Development Seminar II
MAN 6358	PDS III, Professional Development Seminar III

These courses are currently part of the EMST degree and students eligible to shift to the Masters program would do so with no loss of credits. Because of the manner in which the EMST is scheduled, potentially eligible students would have to apply for the EMST after the first three courses, with the decision to admit or not coming after grades are turned in for the fourth course.

For additional information about the program, contact the program manager at (305) 348-7662.

Decision Sciences and Information Systems

Christos P. Koulamas, *Professor and Chair, Ryder Eminent Scholar and Senior Associate Dean*

Dinesh Batra, *Professor*

Irma Becerra Fernandez, *Associate Professor and Faculty Director, MSMIS Program and Knight Ridder Research Fellow*

Susan Clemmons, *Visiting Assistant Professor*

Karlene Cousins, *Assistant Professor*

Stylianios Drakatos, *Lecturer*

Kaushik Dutta, *Assistant Professor*

Joyce J. Elam, *Professor, James L. Knight Eminent Scholar*

S. Christopher Ellis, *Instructor*

Sushil K. Gupta, *Professor*

Faisal Kaleem, *Lecturer*

Gerard Klonarides, *Lecturer*

Kuldeep Kumar, *Professor*

George J. Kyparisis, *Professor and Knight Ridder Research Fellow*

Ronald M. Lee, *Professor*

Iris Mack, *Instructor*

Tomislav Mandakovic, *Professor and Associate Dean, Alvah H. Chapman, Jr., Graduate School of Business and Faculty Director, Downtown MBA and Master of International Business and Evening MBA Program*

Manoel Oliveira, *Instructor and Director of Technology*

Dasaratha V. Rama, *Professor and Knight Ridder Research Fellow*

Larry A. Smith, *Associate Professor*

Monica Tremblay, *Assistant Professor*

Debra Vander Meer, *Assistant Professor*

Nicole Wishart, *Instructor*

Weidong Xia, *Assistant Professor*

Steve H. Zanakis, *Professor*

Participating Adjunct Faculty

Geraldine Klonarides

Purpose

With the rapid decrease in information technology cost/benefit ratios, the advancement of graphical user interfaces, and the development of the Internet, information systems have become ubiquitous and strategic.

Students in the information systems concentrations use new or existing research methods to help understand the ways in which contemporary organizations design, employ, and manage information systems.

Students in our graduate programs learn the intellectual frameworks and methods used in areas like systems analysis and design (including object-oriented applications), database management, decision support systems (including data warehousing), global electronic commerce, enterprise-wide information systems, and information systems management.

The Department of Decision Sciences and Information Systems offers a Master of Science in Management Information Systems (MSMIS) and a concentration in the Ph.D. program.

Master of Science in Management Information Systems (MSMIS)

Our Master of Science in Management Information Systems (MSMIS) is the only program of its kind that was actually designed with strategic direction from the top CIOs in South Florida. In conjunction with our world-renowned faculty, our advisory board of top IT professionals was instrumental in creating a new and unique master's program that delivers knowledge critical to the success of future Chief Information Officers (CIOs).

To better prepare you to become a CIO, we offer you an integrated curriculum that combines technical and IT management skills, including electronic commerce management and strategy, database management, systems analysis and design, project management, knowledge management, and management of the information systems function. This approach enables you to understand the complexities of today's most critical business systems and to manage IT resources to produce the best results for your organization.

Unique Features

- Complete the program in 12 months.
- Acquire a unique combination of technical and IT management skills.
- Learn high-demand technologies such as Teradata, SAP, Rational Rose, .Net Java, PL/SQL, UML, XML.
- Gain hands-on application experience in state-of-the-art technology labs.
- Build a future network of highly-qualified professionals and peers in the IT field.
- Improve your soft skills by taking mandatory professional development seminars focused on leadership, team-building skills, oral and written presentation skills, and career preparation.

The following courses are required for the MSMIS degree:

ISM 6205	Database Management
ISM 6222	Telecommunication Networks
ISM 6316	Project Management of Information Sciences
ISM 6106	Systems Analysis
ISM 6326	Information Security
ISM 6156	Enterprise Information Systems
ISM 6930	Special Topics in Management Information Systems
ISM 6423	Knowledge Management
ISM 6489	Electronic Commerce Management
ISM 6057	Web Management
ISM 6338	Information Systems Policy and Strategy
ISM 6307	Management of the Information Systems Function

Professional Development Seminars I, II, III

Professional Development Seminars

Seminars will focus on soft skills such as leadership, team building, oral presentation, writing skills and career exploration. There will be team-building activities which include classroom exercises in group decision-making and problem-solving. Challenging outdoor exercises will be included to help participants build the skills they will need to work together in the program and to succeed in today's team-based organizations. Students will also work with a presentation and writing skills coach to improve the

communication and writing skills that are critical to managerial success.

Seminars will be mandatory, non-credit.

Professional Development Seminar I

Team Building – Ropes Course	8hrs
Career Development	6hrs
Working in Teams	4hrs

Professional Development Seminar II

Presentation Skills	8hrs
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Professional Development Seminar III

Writing Skills	8hrs
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To complete MSMIS degree, students need to successfully complete all 12, three-credit hour courses for a total of 36 credit-hours, and maintain a B average (3.0 GPA).

For additional information, please visit <http://msis.fiu.edu> or contact the Program Manager at (305) 348-6852 or msis@fiu.edu.

Master of Science in Management Information Systems/Master of Business Administration Joint Degree Program

The Department of Decision Sciences and the MBA program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University are offering a joint degree program culminating in both a Master of Business Administration (MBA), and a Master of Science in Management Information Systems degree (MSMIS). Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree program will use existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.

2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or MSMIS students must apply and be admitted no later than the second to last semester in which they are expected to complete their original degree requirements.

3. Candidates must satisfy all requirements for each degree. To obtain the MSMIS degree, the student will be required to take twelve (12) MIS courses. This includes the one MIS course in the MBA core program, plus eleven MIS courses from the MSMIS program, for a total of 36 credit hours. Four of these eleven MSMIS courses will be used to satisfy part of the elective requirements of the MBA program. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements. The two degrees will have five common courses. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSMIS courses transferred to meet MBA elective credit must be 6000 level courses approved by the University Curriculum Committee. Directors of the MBA and MSMIS degree programs may adjust these exact course requirements as

a result of future changes to the MBA or MSMIS curriculums.

4. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate. With the joint degree program students will take a total of 76 credit hours to get both degrees. Without the joint degree program students will need to take 91 credit hours to get both degrees. Thus, MBA students who have taken twelve credits of MSMIS common courses may obtain an MSMIS degree with an additional 21 credits. MSMIS students who have taken three credits of a MBA core MIS course may obtain an MBA degree with only 40 credits.

For additional information, contact the Evening MBA office at (305) 348-3256 or the MSMIS Office at (305) 348-6852.

MIS Concentration in the Ph.D. Program

The Department of Decision Sciences and Information Systems offers a Management Information Systems (MIS) concentration in the doctoral program in Business Administration. The concentration requires completion of the following six courses (18 credit-hours):

ISM 7935	Foundations of IS Research
ISM 7306	Seminar on Strategy and Information Resource
COP 7545	File and Database Systems
ISM 7126	Seminar on Systems Analysis
ISM 7406	Decision Support Systems
ISM 7xxx	Enterprise Information Systems

Please contact the Ph.D. program director, Professor Ronald M. Lee for further requirements and details.

Graduate Certificate in Management Information Systems

The Graduate Certificate in Management Information Systems is designed to meet the rapidly evolving needs of information systems and business professionals in the field of management information systems. The goal of this certificate program is to provide a solid understanding of the design, development, technology, and management of information systems. The program focuses on areas in high demand – database management, systems analysis and design, and telecommunication networks.

The Certificate Program consists of six courses, (18 credit hours):

ISM 6205	Database Management
ISM 6222	Telecommunications Networks
ISM 6326	Information Security
ISM 6106	Systems Analysis
ISM 6156	Enterprise Information Systems
ISM 6316	Project Management of IS

Finance and Real Estate

William Welch, Associate Professor and Chair

Gary Anderson, Associate Professor

Joel Barber, Associate Professor

Paul Black, Instructor

Deanne Butchey, Instructor

Chun-Hao Chang, Associate Professor and Faculty

Director, MSF Program, Pines

Wen-Hsiu Chou, Assistant Professor

Robert T. Daigler, Professor and Knight Ridder

Research Fellow

Krishnan Dandapani, Professor

Brice Dupoyet, Assistant Professor

Shahid Hamid, Professor and Faculty Director,

MSF Program, University Park

William Hardin, Associate Professor of Finance and

Real Estate and Director, Real Estate Program, and

Faculty Director, MS in International Real Estate,

and Knight Ridder Research Fellow

Xiaoquan Jiang, Assistant Professor

Ken H. Johnson, Assistant Professor

Constantine (Gus) Kalogeras, Clinical Professor

James Keys, Instructor

Edward Lawrence, Assistant Professor

Andrew McCosh, Professor and Alvah Chapman

Eminent Scholar in Management and Ethics

Suchismita Mishra, Assistant Professor

Raul Moncarz, Professor Emeritus

Ali M. Parhizgari, Professor and Ingersoll Rand

Eminent Scholar

Arun Prakash, Professor and Knight Ridder Research

Fellow, and Director, Ph.D. Programs

Emmanuel Roussakis, Clinical Professor and Faculty

Director, MSF Program, Downtown

Helen Simon, Instructor

Zhonghua Wu, Assistant Professor

John S. Zdanowicz, Professor and Director, Jerome

Bain Real Estate Institute, FIBA (Florida

International Bankers Association) Professor

Participating Adjunct Faculty

Marcos Kerbel

Badi Sabet

Purpose

The Department of Finance and Real Estate's graduate program seeks to extend and deepen students' understanding of finance in both its theoretical and practical dimensions.

The Department offers a Master of Science in Finance (MSF) degree that prepares graduates to analyze and solve problems related to obtaining and using real and financial assets and liabilities. The curriculum grounds students in the areas of banking, corporate finance, investment, portfolio management, financial risk management, financial engineering, financial markets, institutions, and international finance. It provides them with concepts and applications framed within the most current developments in these fields.

The Department of Finance and Real Estate offers a Master of Science in International Real Estate degree that prepares students to analyze and solve complex real estate investment decisions. The curriculum grounds the students in areas such as real estate investments, mortgage related securities, mortgage banking,

commercial brokerage, development, asset management, and property management with an international focus.

The Department also offers a Finance Concentration in the EVEMBA program. Contact the Program Manager for details.

Master of Science in Finance (MSF)

To earn a Master of Science in Finance degree, students must complete a minimum of 33 semester hours (11 courses)

The 33 credit-hour requirement may be reduced to 30 hours for students who have an accredited Master's degree in Business Administration (MBA). In addition, students may be allowed to transfer three graduate semester hours from an accredited university even if they did not secure an advanced degree.

The following courses are required for the MSF degree:

Core Courses

FIN 6406	Corporate Finance
FIN 6456	Quantitative Methods in Financial Analysis
FIN 6515	Security Analysis
FIN 6246	Financial Markets and Institutions
FIN 6525	Portfolio Management
FIN 6537	Financial Futures and Fixed Income Invest
FIN 6487	Financial Risk Management
FIN 6644	Global Financial Strategy

Required Electives: Choose either A, B, or C A).

FIN 6425	Financial Management Policies
FIN 6436	Capital Budgeting and Long Term Resource Allocation
FIN 6465	Financial Planning and Statement Analysis
	or

B).

FIN 6425	Financial Management Policies
FIN 6517	Advanced Investment
FIN 6465	Financial Planning and Statement Analysis
	or

C).

FIN 6625	International Bank Management
FIN 6326	Commercial Banking
FIN 6346	Credit Analysis

*Note: Students are required to have taken a basic accounting course or equivalent by the end of the first semester as prerequisite or co-requisite for the program.

The minimum passing grade for any FIN 6000 level course is "C". MSF students must maintain an overall grade point average (GPA) of 3.0.

For more information, contact the program manager (305) 348-4198.

Master of Science in International Real Estate (MSIRE)

To complete a Master of Science in International Real Estate degree, students must complete a minimum of 30 semester hours (10 courses).

The following courses are required for the MSIRE degree:

Core Courses

REE 6045	Real Estate Markets, Institutions and Practices	
FIN 6406	Corporate Financial Management	
FIN 6246	Financial Markets and Institutions	
REE 6435	Real Estate Law	
FIN 6644	Global Financial Strategy	
REE 6305	Advanced Real Estate Investments and Valuation	
REE 6200	Real Estate Finance	
REE 6935	Seminar in International Real Estate	

Required Electives: to be determined with advise and consent of Faculty Director of MSIRE.

The minimum passing grade for any MSIRE course is "C". MSIRE students must maintain an overall grade point average (GPA) of 3.0.

For more information, contact the program manager (305) 577-1699.

Finance Concentration in the Ph.D. Program

All students are required to complete a minimum of 16 courses. Those concentrating in Finance must take six courses or seminars in Finance (as described below), a two-course sequence in advanced economic theory, and a two-course sequence in either advanced econometrics or an equivalent sequence of courses in advanced statistics. With the advice and consent of the departmental Ph.D. committee, students also select other supporting coursework. The first year of study is regarded as "Tier I" in the Ph.D. program, and successful completion of this year of study is a prerequisite for enrollment in some of the more advanced courses.

Students are expected to maintain a GPA of 3.5 or better in the six departmental courses that comprise the Finance concentration. In addition, students are expected to maintain a GPA of 3.3 or better in all of their coursework.

A Sample Course of Study

The sample program of study below describes the schedule for a typical student. Variations may be allowed for some students, and, of course, the requirements may be changed at the discretion of the Ph.D. Committee.

Year I – Fall Semester

FIN 7855	Financial Economics I**	3
FIN 7845	Statistical Methods in Finance I***	3
FIN 7808	Financial Theory I	3

Year I – Spring Semester

FIN 7856	Financial Economics II**	3
FIN 7846	Statistical Methods in Finance II***	3
FIN 7809	Financial Theory II	3

Year I – Summer Semester

GEB 7916	Empirical Project	6
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Year II – Fall Semester

FIN 7819	Financial Theory III	3
Finance Elective		3
Finance Elective		3

Year II – Spring Semester

Finance Elective		3
Finance Elective		3
Finance Elective		3

Year II – Summer Semester

GEB 7916	Empirical Project	6
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Year III – Fall Semester

Finance Elective		3
Finance Elective		3
GEB 7981	Dissertation Preparation	3

Year III – Spring Semester

GEB 7980	Ph.D. Dissertation	6
Finance Elective		3

Year III – Summer Semester

FIN 7980	Ph.D. Dissertation	6
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Year IV – Fall Semester

FIN 7980	Ph.D. Dissertation	9
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Year IV – Spring Semester

FIN 7980	Ph.D. Dissertation	9
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** The sequence in Micro-Economic Theory, ECO 7115 and ECO 7116, may be substituted for this sequence in Financial Economics.

***The sequence in Econometrics, ECO 7424 and ECO 7425, may be substituted for this sequence in Statistical Methods in Finance.

Summer Research Projects

Students are required to complete research projects during the summer semesters following their first and second years in the program. One faculty member will serve as an advisor for all research projects in a given summer.

For both summer projects, students must submit a written paper and make a presentation to the faculty. Ideally, these papers should be of sufficient quality to merit their submission to a conference or a journal. Students must satisfy all university and college dissertation requirements.

Graduate Certificate in Banking (CIB)

The Graduate Certificate in Banking is designed for practicing bank managers and bank employees. The program consists of six graduate finance courses. Students who complete the courses successfully will have earned and will be presented with a Certificate in Banking.

Prerequisites

Must have a bachelors in Business Administration with a 3.0 GPA in the last two years of undergraduate studies, or 2.75 GPA in conjunction with significant related work experience.

Accounting: either an undergraduate course in accounting or the course given in lieu of the accounting prerequisite in conjunction with the MSF program.

Requirements (All of the courses listed here are currently taught as part of the MSF program.)

NOTE: All courses taken in the certificate program can be applied towards the Masters of Science in Finance degree at FIU provided the student is admitted to the Masters program prior to the completion of no more than 12 graduate certificate credit hours. Courses taken for this graduate certificate can not be used for another graduate certificate in the Finance Department.

Retention and Graduation Requirements

All students must maintain a minimum GPA of 3.0 or above throughout the program. To graduate all students need to successfully complete required courses, and a GPA of 3.0.

1. FIN 6406 Corporate Finance: In-depth examination of asset, liability and capital structure management, with emphasis on valuation capital budgeting techniques; risk

evaluation; working capital management; and methods of short-term, intermediate and long-term financing. Prerequisite: ACG 6026 or equivalent.

2. FIN 6515 Securities Analysis: An analysis of securities and the organization and operation of their markets. The determination of the risk reward structure of equity and debt securities and their valuation. Special emphasis on common stocks. Other topics include options, mutual funds and technical analysis. Prerequisite: FIN 6406.

3. FIN 6246 Financial Markets and Institutions: Analysis of the characteristics and efficiency of the money markets and capital markets. Types of money market and capital market instruments, and the role of financial institutions in these markets. Prerequisite: FIN 6406.

4. FIN 6487 Financial Risk Management-Financial Engineering: A survey of financial instruments used for financial risk management, including forwards, futures, options, and swaps. Emphasis is on identification of financial risks and designing optimal risk management program. Prerequisites: FIN 6246 or 6515.

5. FIN 6326 Commercial Banking: The objectives, constraints, and policies applicable to the management of commercial banks. Emphasis will be given to asset and liability management, marketing of services and other banking functions. Prerequisite: FIN 6406.

6. FIN 6346 Credit Analysis: This course examines how the accounting framework is integrated with the tools and techniques for the analysis and interpretation of financial statements. Evaluation of risk in domestic and foreign loans and the pricing of credit facilities. Prerequisite: FIN 6406.

Graduate Certificate in International Bank Management (CIBM)

The Certificate in International Bank Management is designed to train current and future bankers in the field of international banking policies and practices. It provides current banking professionals with an understanding of the interrelationships between domestic and international banking.

The program consists of six graduate Finance courses. Students who complete the courses successfully will have earned and will be presented with a Certificate in International Banking.

Prerequisites

Must have a bachelors in Business Administration with a 3.0 GPA in the last two years of undergraduate studies, or 2.75 GPA in conjunction with significant related work experience.

Accounting: either an undergraduate course in accounting or the course given in lieu of the accounting prerequisite in conjunction with the MSF program.

Requirements (All of the courses listed here are currently taught as part of the MSF program.)

NOTE: All courses taken in the certificate program can be applied towards the Masters of Science in Finance degree at FIU provided the student is admitted to the Masters program prior to the completion of no more than 12 graduate certificate credit hours. Courses taken for this graduate certificate can not be used for another graduate certificate in the Finance Department.

Retention and Graduation Requirements

All students must maintain a minimum GPA of 3.0 or above throughout the program. To graduate all students

need to successfully complete required courses, and a GPA of 3.0.

1. FIN 6406 Corporate Finance: In-depth examination of asset, liability and capital structure management, with emphasis on valuation capital budgeting techniques; risk evaluation; working capital management; and methods of short-term, intermediate and long-term financing. Prerequisite: ACG 6026 or equivalent.

2. FIN 6246 Financial Markets and Institutions: Analysis of the characteristics and efficiency of the money markets and capital markets. Types of money market and capital market instruments, and the role of financial institutions in these markets. Prerequisite: FIN 6406.

or

FIN 6515 Securities Analysis: An analysis of securities and the organization and operation of their markets. The determination of the risk reward structure of equity and debt securities and their valuation. Special emphasis on common stocks. Other topics include options, mutual funds and technical analysis. Prerequisite: FIN 6406.

3. FIN 6487 Financial Risk Management-Financial Engineering: A survey of financial instruments used for financial risk management, including forwards, futures, options, and swaps. Emphasis is on identification of financial risks and designing optimal risk management program. Prerequisites: FIN 6246 or 6515.

4. FIN 6644 Global Financial Strategy: Aspects of strategic financial environment and management of firms that operate in a global arena; to include recent developments in financial strategy, international trade and economic decision making.

5. FIN 6625 International Bank Management: Management of the international banking function; setting goals and developing strategies, establishing an organizational structure and managing operations. International banking services. Foreign lending, risks, restraints, and portfolio considerations. International banking trends and implications for regulation. Prerequisite: FIN 6406.

6. FIN 6326 Commercial Banking: The objectives, constraints, and policies applicable to the management of commercial banks. Emphasis will be given to asset and liability management, marketing of services and other banking functions. Prerequisite: FIN 6406.

or

FIN 6346 Credit Analysis: This course examines how the accounting framework is integrated with the tools and techniques for the analysis and interpretation of financial statements. Evaluation of risk in domestic and foreign loans and the pricing of credit facilities. Prerequisite: FIN 6406.

Graduate Certificate in Investments

The "Graduate Certificate in Investments" is a certificate program that consists of five specific courses in the Finance Department. The Certificate is designed for students who want additional knowledge and professional expertise in the areas of trading instruments and investment analysis, as well as for students interested in professional designations such as the CFA (Chartered Financial Analyst), which is now a world-wide standard for excellence in investment analysis.

Prerequisites

Must be admissible to the Master of Science in Finance (MSF) program, including a 3.0 GPA in the last two years

of undergraduate studies, or a 2.75 GPA in conjunction with significant related work experience.

Accounting: either an undergraduate course in accounting or a course given in lieu of the accounting prerequisite in conjunction with the MSF program.

Requirements (All of the courses listed here are currently taught as part of the MSF program)

Five courses completed from the following courses listed below, with at least a minimum overall 'B' average and no individual course grade below a 'C'. A maximum of one previously taken course at the graduate level can be transferred into the certificate program.

NOTE All courses taken in the certificate program can be applied towards the Masters of Science in Finance degree at FIU provided the student is admitted to the Masters program prior to the completion of no more than 12 graduate certificate credit hours. Courses taken for this graduate certificate can not be used for another graduate certificate in the Finance Department.

Required Courses

FIN 6406	Corporate Finance
FIN 6515	Security Analysis (Stock Market and Investment Analysis)*

*Important for the analysis of securities and eventually taking the CFA.

FIN 6550	Behavioral Finance and Market Microstructure (Trading and Investment Behavioral Issues)
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Approved Electives

One of the following:

FIN 6246	Financial Markets and Institutions
FIN 6537	Fixed Income Analysis

One of the following:

The remaining course elective listed above (FIN 6246 or FIN 6537)

FIN 6487	Financial Risk Management
FIN 6525	Portfolio Management
FIN 6489	Advanced Investments

NOTE: Recommended courses for the Chartered Financial Analysts (CFA) exam: Financial Markets, Security Analysis; Fixed Income Analysis; Portfolio Management.

Graduate Certificate in Financial Risk Management

The "Graduate Certificate in Financial Risk Management" is a certificate program that consists of five specific courses in the Finance Department. The Certificate is designed for students who want additional knowledge and professional expertise in the areas of financial risk management of a firm or financial institution, as well as those interested in professional designations such as the PRM (Professional Risk Manager) or FRM (Financial Risk Manager).

Prerequisites

Must be admissible to the Master of Science in Finance (MSF) program, including a 3.0 GPA in the last two years of undergraduate studies, or 2.75 GPA in conjunction with significant related work experience.

Accounting: either an undergraduate course in accounting or the course given in lieu of the accounting prerequisite, ACG 6026 in conjunction with the MSF program.

Requirements (All of the courses listed here are currently taught as part of the MSF program.)

Five courses completed from the following courses listed below, with a minimum overall 'B' average and no individual course grade below a 'C'. A maximum of one previously taken course at the graduate level can be transferred into the certificate program.

NOTE: All courses taken in the certificate program can be applied towards the Masters of Science in Finance degree at FIU provided the student is admitted to the Masters program prior to the completion of no more than 12 graduate certificate credit hours. Courses taken for this graduate certificate can not be used for another graduate certificate in the Finance Department.

Required Courses

FIN 6406	Corporate Finance
FIN 6456	Quantitative Analysis in Finance
FIN 6487	Financial Risk Management
FIN 6489	Advanced Risk Management

Approved Electives

One of the following:

FIN 6246	Financial Markets and Institutions
FIN 6515	Security Analysis (Investment Analysis)
FIN 6537	Fixed Income Analysis
FIN 6525	Portfolio Management

NOTE: These courses help to prepare the student for the Professional Risk Manager (PRM) designation and/or the Financial Risk Manager (FRM) designation.

For the PRM designation: Financial Markets, Quantitative Analysis in Finance, Financial Risk Management, Advanced Risk Management.

Graduate Certificate in International Real Estate

Admission

Students will be admitted to the Graduate Certificate program in the Fall, Spring, and Summer semesters. The applicant must have an undergraduate GPA of 2.75 or better to be considered for admission.

After a student has completed 12 credit-hours in the certificate program, he/she may express an interest for further graduate studies in International Real Estate. In that case, if the certificate GPA is 3.25 or higher for the 12 credit-hours, the student may transfer into the Master of Science in International Real Estate (MSIRE) Program provided he/she has completed the necessary graduate application and has submitted all required materials.

If a student does not meet the 3.25 GPA in the first 12 credits, he/she cannot be considered for admission to the Master of Science in International Real Estate (MSIRE) Program at that time or in the future. The student will finish two more courses in the Certificate Program and will be awarded the Graduate Certificate in International Real Estate, as long as he/she satisfies all Graduate School requirements for graduation.

Courses

The Graduate Certificate in International Real Estate will consist of 18 credit hours for completion. Students will be required to complete, with a GPA of 3.0 or better, two core courses:

REE-6045	Real Estate Markets, Institutions and Practices
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FIN-6406 Corporate Finance

as well as four courses from those listed below:

REAL ESTATE

REE 6200 Real Estate Finance

REE 6305 Advanced Real Estate Investments and Valuation

REE 6435 Real Estate Law

Other Faculty Advisor approved Real Estate elective

FINANCE BASE

FIN 6246 Financial Markets and Institutions

FIN 6636 International Finance

Master of Science in Finance/Master of Business Administration Joint Degree Program

The Department of Finance and the MBA program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University have a joint degree program culminating in both a Master of Business Administration degree (MBA), and a Master of Science in Finance degree (Fast Track-MSF). Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree program uses existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate in the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.
2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or Fast Track-MSF students must apply and be admitted by no later than the second to last semester in which they are expected to complete their original degree requirements.
3. Candidates must satisfy all requirements for each degree. To obtain the MSF degree, the student will be required to take eleven (11) finance courses. This includes the two finance courses in the MBA core program, plus nine finance courses from the MSF fast track program, for a total of 33 credit hours. Three of the nine MSF courses will be used to satisfy part of the elective requirements of the MBA program. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements. The two degrees will have 5 common courses. Courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSF courses transferred to meet MBA elective credit must be 6000 level courses approved by the University Curriculum Committee. Directors of the MBA and MSF degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSF curriculums.
4. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.
5. With the joint degree program students will take a total of 73 credit hours to get both degrees. Without the

joint degree program students will need to take 88 credit hours to get both degrees. Thus, MBA students who have taken nine credits of MSF fast track common courses may obtain an MSF degree with only an additional 18 credits. MSF students who have taken six credits of MBA core finance courses may obtain an MBA degree with only an additional 40 credits.

Master of Science in International Real Estate/Master of Business Administration Joint Degree Program

The Department of Finance and the Alvah H. Chapman Jr. Graduate School of Business at Florida International University have a joint degree program culminating in both a Master of Science in Finance (MSF), and a Master of Science in International Real Estate (MSIRE) degree. Under the joint degree program, a student can obtain both degrees in less time than it would take to obtain both degrees if pursued consecutively. The joint degree program will use existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.
2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or MSIRE students must apply and be admitted prior to or concurrent with the last semester in which they are expected to complete their original degree requirements.
3. Candidates must satisfy all requirements for each degree. To obtain the MSIRE degree, the student will be required to take ten (10) courses totaling 30 hours as required by the program. This includes two finance courses, FIN 6428 Corporate Finance and FIN 6644 Global Financial Strategy, included in the MBA (and required by all the individual MBA programs) which are also required by the MSIRE Program, plus five real estate core courses in the MSIRE Program, plus two real estate (REE prefix) electives and an additional graduate course approved by the Program Director.
4. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements for the specific MBA program in which they are also enrolled including the three 3-credit hour pre-requisites, ten 3 credit core courses, four 1-credit seminars, and four 3-credit hour electives, for a total of 55 credit hours. Two finance courses are specifically required by both programs. In addition, two of the real estate (REE prefix) courses in the MSIRE may be considered as partially satisfying the elective requirements of the MBA program. The two degrees will have 4 common courses.
5. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSIRE courses transferred to meet MBA elective credit must be 6000 level courses. Directors of the MBA and MSIRE degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSIRE curriculums.

6. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.

7. With the joint degree program students will take a total of 73 credit hours to get both degrees. Without the joint degree program students would need to take 85 credit hours to earn both degrees. A maximum of 12 credit hours or four courses will be double counted for both degree programs. This means that a MBA student will be required to take a minimum of six courses or 18 additional credit hours above the requirements for the MBA Program to earn both degrees. Similarly, a student of the MSIRE must satisfy an additional 43 credit hours in order to earn both degrees.

Master of Science in Finance/Master of Science in International Real Estate

The Department of Finance and the Master of Business Administration program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University have a joint degree program culminating in both a Master of Business Administration degree (MBA), and a Master of Science in International Real Estate degree (MSIRE). Under the joint degree program, a student can obtain both degrees in less time than it would take to obtain both degrees if pursued consecutively. The joint degree program will use existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.

2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MSF or MSIRE students must apply and be admitted prior to or concurrent with the last semester in which they are expected to complete their original degree requirements.

3. Candidates must satisfy all requirements for each degree. To obtain the MSIRE degree, the student will be required to take ten (10) courses totaling thirty (30) credit hours. This includes the five real estate courses in the MSIRE core, three finance courses in the MSIRE core, plus one real estate (REE prefix) elective and one finance (FIN prefix) elective for a total of 30 credit hours. The Faculty Director of the MSIRE may substitute other suitable courses for these electives at the request of the student. The eight core REE and FIN courses include REE 6045 Real Estate Markets, Institutions, and Practices, REE 6200 Real Estate Finance, REE 6305 Real Estate Investments, REE 6435 Real Estate Law, REE Seminar in International Real Estate, FIN 6428 Corporate Finance, FIN 6644 Global Financial Strategy, and FIN 6246 Financial Markets and Institutions.

4. To obtain the MSF degree, the student will have to fulfill all MSF program requirements, including eleven finance courses totaling thirty-three (33) credit hours, eight courses of which are considered part of the core curriculum. The eight core MSF courses are FIN 6428

Corporate Finance, FIN 6644 Global Financial Strategy, FIN 6246 Financial Markets and Institutions, FIN 6456 Quantitative Methods in Financial Analysis, FIN 6515 Security Analysis, FIN 6538 Financial Futures and Fixed Income Investment, and FIN 6487 Financial Risk Management. The remaining three courses must be taken in one of three specializations approved by the faculty and which include three courses in Corporate Finance, three in Investments, or three in Commercial and International Banking.

5. The three finance courses in the MSIRE core curriculum correspond to three of the courses in the core MSF program. Therefore, students pursuing the joint degree program will be credited for these courses in both programs. In addition, one Real Estate course in the MSIRE curriculum may be counted as one of the three courses required by the MSF specialization. The two degrees then will potentially have 4 common courses.

6. A minimum of seventeen (17) courses will be required to earn the dual degrees: four common courses, six specific to the MSIRE program, and seven specific to the MSF program. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. The Faculty Directors of the MSIRE and MSF degree programs may adjust these exact course requirements as a result of future changes to the MSIRE or MSF curriculums, subject to the approval of the Dean of the Chapman Graduate School.

7. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.

8. With the joint degree program students will take a total of 51 credit hours to get both degrees. Without the joint degree programs students would need to take 63 credit hours to get both degrees.

Management and International Business

K. Galen Kroeck, *Professor and Chair*
Sungu Armagan, *Assistant Professor*
Meredithe Burnett, *Assistant Professor*
Natarajan Balasubramanian, *Assistant Professor*
Constance S. Bates, *Associate Professor*
Alan Carsrud, *Clinical Professor and Director*,
Eugenio Pino and Family Global Entrepreneurship Center
Eric Cartaya, *Visiting Instructor and Faculty Co-Advisor, MSHRM Program – Miami and Jamaica*
Aya Chacar, *Assistant Professor*
Changwha (Chris) Chung, *Assistant Professor*
Linda Clarke, *Visiting Instructor*
Jose de la Torre, *Professor and Knight Ridder Eminent Scholar*
Gary Dessler, *Clinical Professor*
Dana L. Farrow, *Professor and Faculty Director, International MBA Program*
G. Ronald Gilbert, *Clinical Professor*
Carolina Gomez, *Associate Professor*
Doreen Gooden, *Instructor*
Jerry Haar, *Clinical Professor and Associate Dean, International Affairs and Projects*
Nathan J. Hiller, *Assistant Professor*
Robert Hogner, *Associate Professor and Faculty Director, International Business Program Development*
Sumit Kundu, *Professor, Knight Ridder Research Fellow*
Karl O. Magnusen, *Professor Emeritus*
Modesto A. Maidique, *Professor and University President*
J. Randall Martin, *Lecturer and Coordinator of Study Abroad Programs*
William Newbury, *Assistant Professor*
Karen Paul, *Professor*
Clifford R. Perry, *Distinguished Executive Professor and Associate Dean of the Landon Undergraduate School of Business*
Leonardo Rodriguez, *Professor Emeritus*
Donald Roomes, *Instructor and Director, BBA + Weekend and BBA + Sunrise and International MBA Jamaica*
Juan Sanchez, *Professor and Knight Ridder Eminent Scholar*
William Schneper, *Assistant Professor and Faculty Director, International Business Honors Program*
Philip Shepherd, *Associate Professor*
Ronnie Silverblatt, *Associate Professor*
Deborah Vidaver-Cohen, *Associate Professor*
Mary Ann Von Glinow, *Professor and Director of the Center for Business Education and Research (CIBER) and Faculty Co-Advisor, MSHRM and Knight Ridder Eminent Scholar*
David Wernick, *Lecturer*

Participating Faculty

Kevin W. Brown
John Kleban
Mary Leckband
Martin C. Luytjes

Juan Pujol
Robert Soloff, PA
Horace Williams
David Wilson

Louis Melbourne
Nancy Powell

Andrew Yap

The Management and International Business Department includes an internationally-oriented and dedicated faculty with expertise in strategic management, change management, human resource management, organizational behavior and international business.

Our curriculum is designed to prepare students for successful management careers in the global business arena and in a variety of organizations. Our graduates are armed with an understanding of the management discipline, a broad intellectual framework for managing in an evolving marketplace, the ability to lead and work within teams, computer literacy, and solid communication skills.

Master of Science in Human Resource Management

The Master of Science in Human Resource Management is designed for professionals and executives in the field of human resource management, as well as for college graduates interested in a career in the field. The MSHRM is a value-added program where students proceed through courses in a lock-step process designed to maximize the value of the program. This twelve-course (36-hour) program is designed to be completed in 12 months, with classes meeting only on Saturdays. The students will also have extensive interaction with an Advisory Board, which is made up of leading HR professionals from the South Florida area.

To complete the program successfully, students must maintain a "B" average (3.0 GPA). For further information, please contact the program manager at (305) 348-5945, or visit our web site at <http://mshrm.fiu.edu>.

The following courses are required for the MSHRM degree.

Core Courses:

MAN 6297	Labor and Conflict Management
MAN 6347	Performance and Talent Management
MAN 6157	Wellness Management
MAN 6316	HRM Metrics
MAN 6403	Employment Law
MAN 6385	HR Strategy and Planning
MAN 6365	Staffing Organizations
MAN 6336	Reward Systems Management
MAN 6359	HR Knowledge Management
MAN 6327	High Involvement HRM
MAN 6317	Critical Thinking

Entrepreneurship

The Eugenio Pino and Family Global Entrepreneurship Center, founded in 2003 at Florida International University, facilitates all entrepreneurial activities at FIU. The Center's programs provide campus-wide awareness of entrepreneurship as an approach to life that enhances and transcends traditional academic experiences. It is woven into the fabric of FIU through activities and courses across the university.

The multi-dimensional nature of the program allows it to address the unique entrepreneurial needs of one of the nation's largest ethnically diverse academic institutions, located in one of America's most entrepreneurial and dynamic international cities, Miami.

Whether in the arts, sciences, business, engineering, or humanities, entrepreneurship at FIU adds value to every

discipline and enhances the creativity and innovation of students, faculty, staff, and alumni. The Center encourages students from all disciplines to enroll in entrepreneurship courses.

All academic courses in entrepreneurship and other educational activities are offered on a campus-wide basis. The Department of Management and International Business and the Department of Industrial and Systems Engineering are primary partners in the academic endeavors of the Center. As such, both Departments have a range of courses and programs at the Master's and Doctoral level for students focusing on careers in Entrepreneurship.

Entrepreneurship Specialization within the Evening MBA Program

The Evening Master of Business Administration (EVE MBA) program is designed to give students a general management education to help them prepare for advancement in their business careers. While in the program, students may select an area of business within which to specialize: Marketing, Entrepreneurship, Human Resources, Management Information Systems, Finance, Accounting, and International Business.

In order to specialize in the area of entrepreneurship, students enrolled in the EVE MBA program must take the following required courses (6 credits hours):

MAN 6805	Entrepreneurship*
GEB 6116	Business Plan Development*
Plus two of the following elective courses (6 credit-hours):	
FIN 6xxx	Entrepreneurial Finance
GEB 6118	Starting and Growing Professional Practice
MAN 6038	Family Owned Businesses
MAN 6057	Managing Innovation
MAN 6086	Product and Service Development
MAN 6446	Negotiations
MAN 6678	International Entrepreneurship

*Evening MBA students may take this course as a requirement toward their specializations in finance, marketing, management, or international business.

Doctoral Studies Program

The Doctoral Studies Program in Business Administration is a selective one leading to the Ph.D. degree. The program emphasizes the development of research and teaching skills to ensure the graduates acquire the credentials necessary for placement in leading institutions.

Each doctoral student's program of study is individually tailored to mesh faculty and student interests and to maintain a high level of interaction between the students and faculty.

The program generally requires three to four years of full-time study, including approximately one to one-and-one-half years of dissertation research. A set of core, or "tool area" business courses, geared toward establishing the student's breadth of knowledge, is required of all doctoral candidates during the first year of study. The second year of coursework focuses on a particular area of concentration to develop the student's depth knowledge in a specific discipline. The Department of Management and International Business offers a PH.D. concentration in Management. Students may focus their studies on Strategic Management, Entrepreneurship, International Business and International Management, Human

Resource Management, Organizational Behavior, and Hospitality Management.

Required Courses:

MAN 7275	Organizational Behavior Management
MAN 7895	Seminar in Management

And Either

MAN 7616	Multinational Firm Global Strategy
OR	
MAN 7718	Analysis of Corporate Policy

Content Courses (Minimum of 3 courses)

MAN 7146	Leadership
MAN 7147	Leadership II
MAN 7148	Intuition in Management
MAN 7206	Organizational Analysis
MAN 7207	Theories of Organization
MAN 7235	Management Philosophy and Strategy
MAN 7305	Human Resource Management
MAN 7412	Labor-Management Topics
MAN 7609	Comparative Management
MAN 7620	International Business Operations I
MAN 7621	International Business Operations II

Required Research Methods Courses:

MAN 7155	Fundamentals of Behavioral Research
MAN 7910	Advanced Management Research
MAN 7640	International Business Research Methods

AND

GEB 7910	Quantitative Research Methods in Business
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OR

GEB 7911	Quantitative Research Methods in Business
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OR

MAN 7984	Doctoral Research Seminar: Development and Utilization of Large Scale Datasets
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Minimum of 4 Statistical Courses (not listed here)

Research Project Courses

GEB 7906	Doctoral Research Project in Business (Required 6 hour course)
GEB 7936	Doctoral Seminar in Business
GEB 7980	Ph.D. Dissertation (Minimum of 24 credit hours)

Graduate Certificate in Entrepreneurship

Admission

Students must be admitted into any existing graduate program at FIU or admitted as a non-degree seeking student at the graduate level, including a 3.0 GPA in the last two years of undergraduate studies, or a 2.75 GPA in conjunction with significant related work experience related to entrepreneurship.

Requirements

All of the courses listed here are currently taught as part of the Entrepreneurial Academy of the Eugenio Pino & Family Global Entrepreneurship Center in conjunction with existing graduate programs across a wide range of departments in various colleges.

Complete a minimum of six courses from the following courses listed below, with at least a minimum overall "B" average and no individual course grade below a "C". A maximum of one previously taken course can be transferred into the certificate program.

NOTE: Courses taken in the certificate program can be applied towards the MBA track in Entrepreneurship at FIU provided the student is admitted to the MBA program prior to the completion of no more than 12 graduate certificate credits hours.

Required Courses

MAN 6805	Entrepreneurship <i>(or cross-listed course in other schools and colleges at FIU)</i>
GEB 6116	Business Plan Development <i>(or cross-listed course in other schools and colleges at FIU)</i>

Approved Electives

AMH 5935	Entrepreneurs in the US
AMH 6906	Technology and American Society
FIN 6xxx	Entrepreneurial Finance
MAN 6038	Family Owned Businesses
MAN 6057	Managing Innovation <i>(or cross-listed course)</i>
MAN 6086	Product and Service Development <i>(or cross-listed course)</i>
MAN 6678	International Entrepreneurship
MAN 6xxx	Small Business Management
GEB 6118	Starting and Growing a Professional Practice <i>(or cross-listed course)</i>
PUR 6607	Advertising and Public Relations Management
PUR 6806	Integrated Communications Strategy

Graduate Certificate in International Business

Admission

Students will be admitted to the Graduate Certificate program in the Fall, Spring, and Summer semesters. The applicant must have a Bachelors degree in Business Administration or related area with GPA 2.75 or better in upper-division coursework and four years of professional work experience.

After a student has completed 12 hours in the certificate program in no more than two consecutive semesters, the students may express an interest for further graduate studies in International Business. In that case, if the certificate GPA is 3.25 or higher the student may transfer into the Master in International Business (MIB) Program provided he/she has completed the necessary graduate application and has submitted all required materials. If a student does not meet 3.25 GPA in the first 12 credits, he/she cannot be considered for admission to the Master in International Business (MIB) Program. The student will complete an additional 6 credits in the Certificate Program and will be awarded the Graduate Certificate in International Business upon meeting a minimum overall GPA of 3.0 or better.

Courses

The Graduate Certificate in International Business will consist of 18 credit hours for completion. Students will be required to take part in three 1-credit seminars in addition to five 3-credit courses from the Master of International Business (MIB) program's list of required core courses.

Required Seminars

MAN 6930	Introduction to International Business	3
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Core Courses

MAN 6606	The International Business Environment	3
MAN 6601	International Management	3
ACG 6255	International Accounting	3
FIN 6644	Global Financial Strategies	3
MAN 6617	Managing Global Production and Technology	3
MAR 6158	International Marketing	3
BUL 6850	International Business Law	3
MAN 6635	International Business Policy	3

These courses are currently part of the Master in International Business (MIB) degree and students are eligible to transfer to the Masters program would do so with no loss of credits. Potential eligible students would have to apply for the MIB Program during the first 12 credits.

Master of Science in Human Resource Management/Master of Business Administration Joint Degree Program

The Department of Management & International Business and the Alvah H. Chapman Jr. Graduate School of Business at Florida International University have a joint degree program culminating in both a Master of Business Administration degree (MBA), and a Master of Science in Human Resource Management (MSHRM). This joint degree would follow the same structure that was established by the two dual degrees currently approved by the University, that is, the MSF/MBA and MSMIS/MBA Programs. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree program will use existing faculty, courses, and resources. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate on the joint degree student contract the intention to pursue both programs. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention by completing the request to enter a joint degree program.
2. Applications for a joint degree will not be accepted from candidates who have already completed either degree. MBA or MSHRM students must apply and be admitted no later than the second to last semester in which they are expected to complete their original degree requirements.
3. Candidates must satisfy all requirements for each degree:
 - a. To obtain the MSHRM degree, the student will be required to take twelve (12) 3-credit HR courses. This includes the existing HR Strategy course (MAN 6385) – which can replace the Strategic Management course in the core MBA curriculum (MAN 6726) – plus eleven HR courses from the MSHRM program, for a total of 36 credit hours. Four of these eleven MSHRM courses will be used to satisfy the elective requirements of the MBA program.
 - b. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements, that is, three prerequisites (9 credits unless waived),

four one-credit seminars, ten 3-credit core courses and four 3-credit electives, for a total of 46-55 credits depending on prerequisites.

- c. Two degrees will have five common courses. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSHRM courses transferred to meet MBA elective credit must be 6000 level courses approved by the University Curriculum Committee. Directors of the MBA and MSHRM degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSHRM curriculums.

4. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all degree requirements for the first program as if the student had never been a joint degree candidate.

5. With the joint degree program students will take a total of 67-76 credit hours (depending on prerequisites) to get both degrees. Without the joint degree program students would need to take 82-91 credits hours (depending on prerequisites) to get both degrees. Thus, MBA students who have taken twelve credits of MSHRM common courses may obtain an MSHRM degree with an additional 21 credits. MSHRM students who have taken three credits of an MBA core MSHRM course may obtain an MBA degree with only 40 credits.

Marketing

Walfred Lassar, Associate Professor and Chair, Ryder Professor and Director, Ryder Center for Supply Chain Management

Alexandra Aguirre-Rodriguez, Assistant Professor
Cecilia Alvarez, Visiting Assistant Professor

Peter R. Dickson, Professor and Ryder Global Logistic Management Eminent Scholar

Timothy Dugan Birrittella, Lecturer

Jonathan N. Goodrich, Professor

Barnett A. Greenberg, Professor and Faculty Director, International MBA Program, Dominican Republic

Tiger Li, Associate Professor

Paul Miniard, Professor and Knight Ridder K.R. Global Marketing Eminent Scholar

Anthony Miyazaki, Associate Professor and Knight Ridder Research Fellow

Michael S. Munro, Lecturer

Nancy Rauseo, Lecturer

Bruce Seaton, Associate Professor

Kimberly Taylor, Associate Professor

John Tsalkis, Associate Professor and BMI Professor

The Department of Marketing offers concentration in Marketing in both the M.B.A. and the Ph.D. programs. Contact the Department Chair for additional information.

The Department of Marketing boasts an internationally diverse, experienced, widely published, and highly involved faculty. Our faculty includes recognized experts in consumer decision-making and behavior, business ethics, and corporate social responsibility. Our programs and courses represent leading-edge thinking and practice. Many of our graduates, in fact, have become successful entrepreneurs in a variety of business arenas – from high tech to motor sport marketing.

The study of marketing involves learning about how best to make a host of key decisions and implement them in an organization. A few of these decisions include:

- What products and services to offer
- Who customers should be
- How to position products/ services relative to those of competitors
- How to design and package the products/services
- Where and how to distribute the products/services
- How to price products/services
- How to advertise and promote products and services

You can study topics like marketing management, market research, consumer behavior, marketing the small business, export marketing, international marketing, marketing channels, retailing management, advertising management, promotional strategy, personal selling, sales management, strategic marketing, management and advanced studies of international marketing, market research, consumer behavior, promotional strategy, and sales management.

Marketing Concentration in the Ph.D. Program

All students are required to complete a minimum of 15 courses in addition to the College Colloquium series. Students concentrating in Marketing must take all seven of the seminars offered by the Marketing Department; these seminars are listed below. In addition, students are

required to take a two-course sequence in research methods and between two to four courses in statistics (the number of required courses in statistics depends upon the student's level of statistical knowledge upon entering the program). Other coursework will be selected by the student with the advice and consent of the Department's Ph.D. Committee. To remain in the program, students are expected to maintain a GPA of 3.5 or better in the seven courses comprising the Marketing concentration. In addition, students are expected to maintain a GPA of 3.3 or better in all of their other coursework.

Required Marketing Seminars

MAR 7246	Seminar in International Marketing
MAR 7507	Seminar in Consumer Behavior
MAR 7623	Seminar in Marketing Environment
MAR 7399	Seminar in Advertising and Persuasion
MAR 7205	Seminar in Channels of Distribution
MAR 7665	Seminar in Marketing Models
MAR 7817	Seminar in Marketing Management

Research Projects

Students are required to complete research projects during the summer semesters following their first and second years in the program. These projects will be supervised by a faculty member.

Because the primary objective of the first summer research project is to enhance a student's skills in executing research, they are not expected to develop new research hypothesis for this first project. Rather, they may simply select an existing hypothesis that has been tested previously and develop and implement a study for testing it that offers a meaningful methodological contribution to the existing literature.

The second summer research project, however, requires the development of an original research hypothesis. This hypothesis should be formulated well in advance of the summer semester so that students have sufficient time to execute the actual studies during the summer term.

For both summer projects, students must submit a written paper and make a presentation to the faculty. Ideally, these papers should be of sufficient quality to merit their submission to a conference and/or academic journal.

At the end of their coursework, students must pass a comprehensive examination designed to assess their level of preparation for dissertation research. This examination will consist of the student preparing a typed proposal that develops an original hypothesis or hypotheses in an area of substantive importance. The proposal also must describe a methodology for testing the hypothesis. The proposal will be evaluated by the Department's Ph.D. Committee.

Course Descriptions

Definition of Prefixes

ACG-Accounting; BAN-Banking; BUL-Business Law; CGS-Computer and Information Systems; ECO-Economics; FIN-Finance; GEB-General Business; ISM-Information Systems Management; MAN-Management; MAR-Marketing; QMB-Quantitative Methods in Business; REE-Real Estate; SPC-Speech; TAX-Taxation; TRA-Transportation.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Departmental or School/College Designation:

AC – School of Accounting

AS – College of Arts & Sciences

BA – College of Business Administration

DS – Decision Sciences and Information Systems

EC – Economics

FI – Finance

MA – Management and International Business

ME – Marketing

MS – Mathematical Sciences

TD – Theatre and Dance

ACG 5137 Standards and Principles of Financial Accounting (AC) (3). A survey of official pronouncements on accounting standards and principles. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5256 International Dimensions of Accounting and Auditing (AC) (3). Review of and reasons for variations in accounting and auditing practices throughout the world; explore initiatives undertaken to promote transparency, harmonization, and standardization to facilitate understanding of financial statements prepared under various conventions. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5307 Advanced Managerial Accounting (AC) (3). In depth study of determination and control of production costs; budgetary control; CVP analysis; and alternative methods of performance measurement and analysis. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5386 Controllorship (AC) (3). Study of controllorship function; role of controller in planning, accounting for, and evaluating company performance; relationship with internal auditing. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5395 Seminar in Managerial Accounting (AC) (3). An in-depth study of selected areas of managerial accounting. Prerequisites: ACG 4341 or equivalent and permission of Accounting certificate program advisor.

ACG 5507 Issues and Problems in Accounting for Non-Profit Entities (AC) (3). Study and analysis of accounting, reporting, and control standards and practices of non-profit organization -including accounting for governments, hospitals, universities, churches, and others. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5516 The Environment of Government Accounting (AC) (3). Basic public administration emphasizing governmental processes with which governmental accountants and auditors come into contact.

Includes legislative and administrative activities and operating functions having high accounting and auditing involvement. Prerequisite: Permission of accounting certificate program advisor.

ACG 5518 Historical and Comparative Government Accounting (AC) (3). Research and reporting on subjects in the history of, or on comparative aspects of, government accounting. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5519 Contemporary Issues in Government Accounting (AC) (3). Research and reporting on current issues related to government accounting. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5545 Analysis of Governmental Financial Reports (AC) (3). Describes content of government financial reports and analytical methods employed by internal and external users; covers concepts of disclosure, budget/actual analysis, credit evaluations, operational evaluations, measures of fiscal capacity and signs of fiscal stress. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5546 Governmental Planning and Budgetary Accounting with Cases (AC) (3). Budgeting in governments emphasizing formulation based on accounting and auditing input. Budget execution and analysis of deviations of actual from budgets; study of ZBB, PPBS, and MBO systems and their behavioral and accounting bases. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5596 Accounting for Specialized Governmental and Nonprofit Entities (AC) (3). Survey course by guest lecturers covering detailed accounting concepts, procedures, and reporting for enterprise fund entities, educational entities, and unique types of internal service funds. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5627 Systems Auditing (AC) (3). Principles and procedures of auditing systems of information, including the function, approach, and techniques of systems auditing and the evaluation of systems controls. Emphasis on auditing computerized systems. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5696 Seminar in Auditing (AC) (3). An in-depth study of recent developments in auditing. Prerequisites: ACG 4651 or equivalent and permission of Accounting certificate program advisor.

ACG 5806 Seminar in Financial Accounting (AC) (3). An in-depth study of recent developments in financial accounting. Prerequisite: ACG 4111 and permission of Accounting certificate program advisor.

ACG 5846 Statistical Methods in Accounting and Auditing (AC) (3). Formulation, analysis and implementation on a microcomputer of mathematical models in financial and managerial accounting and auditing. Prerequisite: Permission of Accounting certificate advisor.

ACG 5905 Independent Study in Accounting and Auditing (1-3). Individual conferences, supervised readings, and reports on personal investigations. Prerequisites: Written permission of the instructor,

accounting certificate program advisor, School Director, and Dean.

ACG 5936 Special Topics in Accounting and Auditing (AC) (3). For groups of students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisites: Written permission of the instructor, accounting certificate program advisor, School Director, and Dean.

ACG 6026 Accounting for Managers (AC) (3). Presentation of the nature, techniques and uses of accounting from the perspective of people who manage businesses and investments in businesses. Covers both financial and management accounting. Not open to EMST or MACC students.

ACG 6105 Accelerated Financial Accounting I (AC) (4). Underlying concepts and ethical, regulatory and business environment of financial reporting; emphasis on measurement, analysis and interpretation of income, cash flows and financial position. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director. Not open to those with undergraduate accounting degrees.

ACG 6115 Accelerated Financial Accounting II (AC) (4). Underlying concepts and ethical, regulatory and business environment of financial reporting; emphasis on measurement, analysis and interpretation of financial position, accounting partnerships, international corporations. Prerequisites: ACG 6105 and admission to a graduate program in the School of Accounting or permission of the School Director. Not open to those with undergraduate accounting degrees.

ACG 6135 Seminar in Financial Accounting Theory I (AC) (3). A study of the theoretical structure of accounting, with special attention to asset and income definition, recognition, and measurement; and an appraisal of pronouncements of professional accounting organizations. Prerequisites: Baccalaureate in accounting or equivalent and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6145 Seminar in Financial Accounting Theory II (AC) (3). A continuation of ACG 6135, with emphasis on the problems of accounting for price-level changes and other current issues. Prerequisites: ACG 6135 and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6175 Financial Reporting and Analysis (AC) (3). Comprehensive treatment of analysis of financial statements as aid for decision making; looks at current state of financial reporting practices and impact of published statements on economic systems. Prerequisites: ACG 6026, FIN 6406 or equivalent. Not open to EMST or MACC students.

ACG 6176 Evaluation of Financial Reports, Business Analysis and Valuation (3). Seminar examining quality of financial reports and adjusting for investment decisions. Valuation models are used to value firms given economic and industry characteristics and alternative business strategies. Prerequisites: ACG 4111, ACG 4201, or permission of the Director of the School of Accounting.

ACG 6225 Value Added Accounting Practices in Strategic Business Decisions (3). Seminar examining role and inputs of accounting/finance in strategic decisions. Mergers/acquisitions/corporate restructuring frame-work is used to bring into focus analysis necessary for all phases of business. Prerequisites: Master of Accounting students only; must be in final semester of program.

ACG 6245 Accounting and Auditing Compliance Issues (AC) (3). Corporate, government and public accounting compliance with response to institutional and political regulation; attention to compliance in specialized industries such as health care, transportation, financial institutions real estate and construction. Prerequisites: ACG 4111 or equivalent, ACG 4651 and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6255 International Accounting (AC) (3). Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurements; the role of accounting in national economic development. Prerequisites: ACG 6026 or equivalent, not open to MACC students.

ACG 6257 Global Accounting, Auditing and Financial Strategy (3). Evaluation of U.S. GAAP, International Accounting Standards and the international dimensions of auditing. Consideration is given to geopolitical issues, international organizations, and role of regulators. Prerequisites: ACG 4111, ACG 4651, ACG 6176, or permission of the Director of the School of Accounting.

ACG 6295 Financial Accounting IV (AC) (3). The application of accounting principles in the production of information for selected topics in financial statements with extensive examination and evaluation of FASB and international standards of accounting. Prerequisites: Admission to a graduate program in the School of Accounting or the permission of the Director of the School of Accounting.

ACG 6345 Management Accounting and Control (AC) (3). Accounting concepts and techniques useful in evaluation, planning, organization and control of a business enterprise, with attention to methods of accounting for production activities; ethics in management accounting. Prerequisites: ACG 4111 and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting. Not open to those with undergraduate accounting degrees.

ACG 6346 Seminar in Managerial Accounting I (AC) (3). Analysis of transfer pricing; product pricing; incremental profit analysis; decision models; alternative performance measurement techniques; and other advanced topics. Prerequisites: ACG 4341 or ACG 6026, and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6356 Seminar in Managerial Accounting II (AC) (3). A study of the controllership function in corporate organizations; an appraisal of the controller's role in planning, accounting for, and evaluating company

performance; and relationship to internal audit function. Prerequisites: ACG 4341 and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6385 Managerial Control and Controllership (AC)

(3). Control methods for management; control structure, planning and forecasting for budgets; the functions of controllership, including cash management, risk management, investments, tax administration and records management. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6405 Seminar in Accounting Information Systems I (AC)

(3). Accounting information systems security and control and legal and ethical compliance; control of computer failure and abuse and compliance with laws, regulations, and standards. Computer usage required. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6406 Accounting Data Warehousing and Analysis

(3). Framework for enterprises to provide comprehensive access to organization wide accounting data and to develop information systems capable of collecting, processing and arranging accounting data in comprehensive data bases. Prerequisites: ACG 6437, or permission of the Director of the School of Accounting.

ACG 6415 Seminar in Accounting Information Systems II (AC)

(3). Accounting information systems for strategic use in the management of competitive enterprises; budgeting, performance measurement, and cost accounting for generating strategic information. Computer usage required. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6437 Advanced Accounting Information Systems (AC)

(3). Development and control of information systems for accounting, emphasis on new microcomputer technology, software engineering, methods of data processing and database management systems. Prerequisites: ACG 4401, or permission of the Director of the School of Accounting.

ACG 6445 Accounting Information Systems Analysis and Design (AC)

(3). Accounting applications of information systems analysis and design concepts, methods, and tools; requirements, design, control, and prototyping of accounting information systems. Computer usage required. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6455 Accounting Information Systems Technology, Control and Audit I (AC)

(3). Accounting applications, control, and audit of large computer systems; technology, control concepts and procedures, audit testing and documentation, and control and audit software. Computer usage required. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6456 Accounting Information Systems Technology, Control and Audit II (AC)

(3). Accounting applications, control, and audit of small computer systems;

technology, control concepts and procedures, audit testing and documentation, and control and audit software. Computer usage required.

ACG 6466 Accounting Enterprise Resource Planning

(3). Course intends to provide students with an overview of ERP in accounting including history, concepts of ERP and role of ERP in accounting. It also provides students hands on experience with accounting application of ERP package, SAP/R3. Prerequisites: ACG 6437, or permission of the Director of the School of Accounting.

ACG 6515 Advanced Governmental Accounting (AC)

(3). Treats the developing concept of consolidated financial statements for governments. Also covers advanced areas of accounting, e.g., concepts, investment accounting, grant accounting, and pension accounting. Prerequisites: ACG 6505, ACG 6584, admission to graduate program in School of Accounting or permission of the Director of the School of Accounting.

ACG 6517 Audit of Governmental Entities (AC)

(3). Covers methods of audits of governments by independent public accountants, coordination with internal audit staffs; describes audits of governments by internal auditors (audits of fidelity, efficiency and effectiveness); covers current single audit concept. Prerequisites: ACG 6505, admission to the graduate program in the School of Accounting, or permission of the Director of the School of Accounting.

ACG 6625 Information Technology Auditing (AC)

(3). Understanding and application of concepts and procedures of auditing computer information systems; analysis, testing, and documentation of computer security and controls for management and financial statement reports. Prerequisites: ACG 4651, ACG 6437, or permission of the Director of the School of Accounting.

ACG 6655 Auditing and Accounting Systems (AC)

(4). Standards and procedures of auditing, ethics and responsibilities of auditors, audit evidence, reporting, international standards; design and control of accounting information systems. Prerequisites: ACG 4111 with a grade of 'C' or higher and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting. Not open to those with undergraduate accounting degrees.

ACG 6657 Environment of Accounting and Auditing (AC)

(3). Economics and scope of accounting practice in context of self-regulated profession, public policy constraints, complex business structures and innovative transactions, and rapidly changing information technology with extensive reference to business periodicals and on-line databases. Prerequisites: ACG 4111, ACG 4651, or permission of the Director of the School of Accounting.

ACG 6675 Internal Auditing (AC)

(3). This course examines auditing in depth as a professionalized discipline for reviewing testing, and evaluating the financial and the operational activities and controls of an economic entity. Focus will be directed to private sector profit seeking entities as well as governmental and other nonprofit organizations. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6676 Advanced Internal Auditing (AC) (3). Special topics in internal auditing such as forensic auditing, analytical auditing, management consulting, work with external auditors, ethics, multinational aspects, evaluation methods, quality control, new technologies and recent research. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6677 Applied Internal Auditing (AC) (3). The expansion of the internal audit process into such areas as administrative and support functions; line functions such as research, sales, and production; and special areas such as compliance, budgeting and controls. Course is taught by outside lecturers. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6686 Fraud Examination (3). Use of technology for the prevention of financial fraud, examination of emerging practices and regulatory trends as reflected in court decisions. Prerequisites: ACG 4651, ACG 6625, or permission of the Director of the School of Accounting.

ACG 6696 Current Issues in Auditing (AC) (3). Professional and technical aspects of auditing practice; introduction to SEC; ethics and legal responsibilities; emergence of non-public practice; public expectations and professional reality; the impact of technology; international auditing; recent auditing developments. Prerequisites: ACG 4651 and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6835 Behavioral Accounting (AC) (3). Study of the effect of the process and products of accounting and of the relation of changes in the process and products to individual and group behavior; consideration of ways in which accounting can aid individuals and organizations to attain their goals. Prerequisites: ACG 4111 and 4341 or equivalents, and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6845 Accounting and Quantitative Methods (AC) (3). Study of statistical and management science techniques that are or may be utilized in financial and managerial accounting. Prerequisites: QMB 3150 and ACG 4401, or equivalents, and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6866 Accounting for Health Care Organizations (3). Study of financial reporting and analysis applied to for-profit and NFP healthcare organizations emphasizing accounting issues related to strategic decision-making. Prerequisite: Permission of the Director of the School of Accounting.

ACG 6867 Seminar in Medicare Regulation (3). Principles of Medicare payment systems emphasizing changing role of Medicare in the American healthcare system and developing technical skills to understand, identify and research problems in Medicare payments. Prerequisite: Permission of the Director of the School of Accounting.

ACG 6875 Evolution of Accounting Thought (AC) (3). The cultural origins of accounting and its traditional

controversies, from pre-historic time onward, and in an international context. Prerequisites: Admission to graduate program in School of Accounting or permission of the Director of the School of Accounting.

ACG 6885 Accounting Research and Reporting (AC) (3). Examine the projects relating to historical and current problems in public accounting practice, and preparation of appropriate reports in oral and written formats, under a variety of professional settings. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6905 Independent Study in Accounting (AC) (1-3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 6935 Special Topics in Accounting (AC) (1-3). Intensive study for groups of students of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

ACG 7157 Seminar: Theory and Contemporary Research in Financial Accounting (AC) (3). An evaluative overview of the classical literature in financial accounting and the contemporary empirical research published in the leading scholarly journals. Examined are income determination theories, normative accounting principles, accounting information and stock prices, and principal-agent relationships. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7177 Seminar: Accounting Information and Security Prices (AC) (3). An in-depth examination of accounting information and security prices within capital markets theory, including a thorough examination of the cross-sectional properties and time-series properties of accounting numbers and the importance of research findings and new developments in research methodology. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7436 Seminar: Information Value and Agency Research Accounting (AC) (3). An in-depth examination of the research paradigm and the associated empirical research in accounting and auditing. Examined are the issues of information value, risk aversion, risk sharing contracts, as well as accountability from the standpoint of monitoring contracts. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7695 Seminar: Contemporary Research in Management Accounting and Auditing (AC) (3). A broad overview of classical and contemporary empirical research in managerial accounting and auditing including budget and performance review, decision making, information analysis, professional judgment, sampling problems, audit risk, etc. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7836 Seminar: Behavioral Research in Accounting-Individual Behavior (AC) (3). An in-depth examination of the relationship of cognitive psychology, cognitive models of human judgment, decision theory and accounting information. Emphasis is placed upon the human processing of accounting information, the decision

value of information, and the development of decision aids or heuristics. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7837 Seminar: Behavioral Research in Accounting-Human Groups and Systems (AC) (3). The multifarious behavioral relationships of groups within the formal and informal organizational structure are examined with respect to performance measurement (efficiency and effectiveness), accountability, planning and control of the development of decision support systems. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7886 Seminar: Empirical Research Methodology and Paradigms in Accounting (AC) (3). Study of research design, methods of data collection and analysis and problems of measurement in accounting research. Empirical research studies in accounting are integrated throughout to illustrate and analyze the structural problems of research design as well as the strengths and weaknesses of various acceptable paradigms. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7887 Research Forum and Workshop (AC) (1). Regularly scheduled workshop at which visiting scholars as well as faculty and doctoral candidates present and evaluate research papers. Candidates are expected to participate in discussions, act as discussants and present their own research for critique. Sessions are held for structuring and brainstorming research projects in the formative stages as well as for presenting completed efforts. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7888 Seminar: The Philosophy of Science, Theory Construction, and Verification in Accounting (AC) (3). An examination of knowledge, theories, scientific explanation and prediction as related to the social sciences. Various theories of accounting are critically examined from the standpoint of theory construction and verification in the philosophy of science. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7889 Seminar: Positive Theory Research in Accounting (AC) (3). Construction of theory to explain accounting and auditing practices in an environment of regulation using empirical research findings from a growing body of economic-based research in accounting and finance. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7896 Accounting Research Methods on Capital Markets. (AC) (3). An advanced accounting graduate course in current time series methods used to analyze capital and other time-related financial markets. This course is designed for Ph.D. students in accounting and business who already have advanced statistical and financial training, and serves as an introduction to other doctoral courses. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7938 Seminar: Special Topics in Accounting Research (AC) (3). Topics vary according to instructor and student interest in problems and issues on the frontier issues of accounting. Prerequisite: Permission of doctoral advisor in Accounting.

BUL 5661 Law for Accountants (AC) (3). A survey of select topics of direct interest to accounting students,

including contracts, sales, agencies, partnerships, corporations.

BUL 5662 Accountant's Liability (AC) (3). Overview of accountant exposure to private and public sector liability suits, independent in auditor engagements, securities regulations and other state and federal laws of chief concern to accountants.

BUL 6810 Legal Environment of Business (AC) (3). Examines current legal, regulatory, ethical, and political issues within the context of public law. Topics include employment, antitrust, administrative, cyberlaw, and contracts and tort.

BUL 6821 Cyber Law (3). Cutting edge issues of relationship between business/society and legal issues impacting internet usage in e-commerce and topics include intellectual property, business and finance, privacy and social issues. Prerequisites: BUL 4310 or BUL 4320 and graduate standing.

BUL 6830 Survey of Business Law (AC) (3). Overview of substantive and procedural aspects of contract law, U.C.C., partnerships and corporations, accountant's liability, and other aspects of government regulation of business. Prerequisites: Admission to a graduate program in the School of Accounting, or permission of the Director of the School of Accounting. Not open to those with undergraduate accounting degrees.

BUL 6850 International Business Law (AC) (3). Analysis of legal problems facing the U.S. international and multinational businesses. Topics include the transnational research of economic regulation, international trade and investment, antitrust law, technology transfers, and securities law.

BUL 6890 Special Topics in Business Law (AC) (1-6). Intensive study for groups of students of a particular topic, or a limited number of topics, not otherwise offered in the curriculum. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

BUL 6906 Independent Study in Business Law (AC) (1-6). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

COP 7545 File and Database Management Systems (DS) (3). Fundamentals of database concepts and methodologies, including data representation, data modeling, and file organization. Prerequisite: Graduate standing. (on demand)

ECP 6705 Managerial Economics (EC) (3). Basic microeconomic concepts as they apply to decision making within the organization; supply and demand; market structure and market behavior in specific industries. Prerequisites: ECO 3021 and ECO 3011.

ECP 6715 Macroeconomic Forecasting for Management (EC) (3). Business macroeconomic concepts as they apply to decision making within the firm. Traditional models of income determination and forecasting analysis. Prerequisite: ECP 6705.

FIN 5307 Financial Markets and Analysis (3). Financial Institutions, Financial Investments, Financial Planning and Analysis, International Financial Perspectives.

FIN 5495 Leasing and Mergers (FI) (3). Discussion-oriented course will provide an analytical foundation to corporate development, strategies, and resource allocation decisions. Merger activity and leasing decisions will be viewed as strategic decisions by the firm to enable them to achieve corporate objectives. Prerequisites: FIN 3414 or FIN 6406, or equivalent.

FIN 6246 Financial Markets and Institutions (FI) (3). Analysis of the characteristics and efficiency of the money markets and capital markets. Types of money market and capital market instruments, and the role of financial institutions in these markets. Prerequisite: FIN 6406

FIN 6325 Current Issues in Commercial Banking (FI) (3). Main policy issues in commercial banking and the role of regulatory authorities. Presentation includes bank mergers and holding companies; national bank branching; and the present structure and prospects of the financial sector. Prerequisites: FIN 6326 or equivalent. (on demand)

FIN 6326 Commercial Banking (FI) (3). The objectives, constraints, and policies applicable to the management of commercial banks. Emphasis will be given to asset and liability management, marketing of services and other banking functions. Prerequisite: FIN 6406.

FIN 6346 Credit Analysis (FI) (3). This course examines how the accounting framework is integrated with tools and techniques for the analysis and interpretation of financial statements. Evaluation of risk in domestic and foreign loans and the pricing of credit facilities. Prerequisite: FIN 6406.

FIN 6406 Corporate Finance (FI) (3). In-depth examination of asset, liability and capital structure management, with emphasis on valuation capital budgeting techniques; risk evaluation; working capital management; and methods of short-term, intermediate and long-term financing. Prerequisites: ACG 6026 or equivalent.

FIN 6418 Working Capital Management (FI) (3). Intermediate theories and techniques of cash, accounts receivable, inventory, and accounts payable management. Prerequisite: FIN 6406.

FIN 6425 Financial Management Policies (FI) (3). Advanced theories and applications underlying financial decision making. Case studies and model building. Topics may include valuation, capital structure, dividend policy, restructuring, mergers and acquisition, corporate bankruptcy, agency theory, and initial public offerings. Prerequisite: FIN 6406.

FIN 6436 Capital Budgeting and Long Term Resource Allocation (FI) (3). The theory of capital allocation at the level of the firm, and empirical findings. Decision models and their application. The pattern of capital expenditure of industries and of the economy as a whole. Investment determinants. Prerequisite: FIN 6406.

FIN 6446 Competitive Strategy (FI) (3). Provision of tools for managerial decision-making in a variety of competitive environments including demand analysis, short- and long-

run costs of production, demand for factors, market structure and competitive strategy.

FIN 6455 Financial Modeling and Forecasting (FI) (3). An introduction to Financial Modeling and Forecasting. Emphasis is on computer models and forecasting the financial variables. Prerequisites: Permission of the instructor and FIN 6406.

FIN 6456 Quantitative Methods in Financial Analysis (FI) (3). Introduction to mathematical and statistical methods used in finance. The applications of computer techniques to financial management. Prerequisites: FIN 6406 or equivalent.

FIN 6465 Financial Planning and Statement Analysis (3). Examination of fundamental analysis of corporate financial planning and financial statements. Identification of reliable estimates of fundamental corporate earning power and earning risks and valuation.

FIN 6477 Entrepreneurial Finance (3). The course covers how to raise capital for a new venture, maximize the value in a growing venture, and forecast and manage financial performance/cash-flow of a growing enterprise. Prerequisite: FIN 6406.

FIN 6487 Financial Risk Management -Financial Engineering (FI) (3). A survey of financial instruments used for financial risk management, including forwards, futures, options and swaps. Emphasis is on identification of financial risks and designing optimal risk management program. Prerequisites: FIN 6425 or FIN 6515.

FIN 6489 Advanced Financial Risk Management (3). This course examines advanced issues in options and financial engineering, including quantitative aspects of options models credit risk instruments, and how to develop new securities. Prerequisites: FIN 6487 or equivalent.

FIN 6515 Securities Analysis (FI) (3). An analysis of securities and the organization and operation of their markets. The determination of the risk reward structure of equity and debt securities and their valuation. Special emphasis on common stocks. Other topics include options, mutual funds and technical analysis. Prerequisite: FIN 6406.

FIN 6517 Advanced Investments (3). This course examines advanced topics in equity and fixed income investments as well as portfolio theory. Emphasis is on theories and applications in the valuation and management of equity and fixed income instruments both locally and globally. Prerequisites: FIN 6516 and FIN 6537 or equivalent.

FIN 6525 Portfolio Management (FI) (3). Practical and theoretical problems associated with the techniques of optimal portfolio selection, construction, and revision. The portfolio objectives of individuals, corporations and funds. Measurement of portfolio performance and related empirical evidence. The role of computers in portfolio management. Prerequisite: FIN 6515.

FIN 6537 Financial Futures and Fixed Income Investments (FI) (3). An examination of the structure, uses, and strategies associated with financial futures markets. Valuation, hedging, speculative activity, and other futures related risk management issues are discussed. The varieties of fixed income securities and

their default risk. The valuation of fixed income securities and their use in the investment and risk management. Prerequisites: FIN 6246 or FIN 6515.

FIN 6550 Behavioral Finance and Market Microstructure (3). Behavioral finance studies how human behavior affects investment and financial decisions by including biases and dependence. Market microstructure examines intraday price, volume and volatility behavior. Prerequisite: FIN 6406.

FIN 6625 International Bank Management (FI, MA) (3). Management of the international banking function; setting goals and developing strategies, establishing an organizational structure and managing operations. International banking services. Foreign lending, risks, restraints, and portfolio considerations. International banking trends and implications for regulation. Prerequisite: FIN 6406.

FIN 6626 International Bank Lending Policies and Practices (FI, MA) (3). Organization of the lending function and examination of the basic types of international lending: trade financing, loans or placements to foreign banks, loans to governments and official institutions, and loans to businesses. Syndicated bank loans. Documentation and legal considerations in foreign lending. Assessing and managing risk in the international loan portfolio. Prerequisite: FIN 6406.

FIN 6636 International Finance (FI, MA) (3). A comparative study of the institutional characteristics and internal efficiency of developed and underdeveloped capital markets. The relationships between world and capital markets and prospects for integration. The role of multilateral institutions, multinational corporations, states, and the structure of trade in the international short and long term capital flows. The development of financial centers. Prerequisites: FIN 6406 or equivalent.

FIN 6638 International Capital Markets (FI) (3). An exhaustive study of the current institutional aspects of the financial and monetary systems of the developed and emerging markets. Topics will include detailed discussions of capital markets including stock exchanges and the international asset pricing models. Prerequisites: FIN 6406 or permission of the instructor.

FIN 6644 Global Financial Strategy (3). Aspects of strategic financial environment and management of firms that operate in a global arena; to include recent developments in financial strategy, international trade and economic decision making. Prerequisite: FIN 6406

FIN 6645 Global Finance for Executives (FI) (3). Deals with the theoretical and empirical aspects of the financial management of firms that operate in an international business environment. Prerequisite: FIN 6406.

FIN 6656 Latin American Financial Markets and Institutions (3). An evaluative overview of the money and capital markets in Latin America. Topics include review of the most recent literature on regulation and deregulation, globalization, regional markets, privatization, banking innovations, the role of foreign banks, and currency boards in Latin America. Applicable cases will be discussed. Prerequisite: FIN 6406.

FIN 6804 The Theory of Finance (FI) (3). The study of the development of the theory of finance and its implications for the financial decisions made by the manager of business firms. Topics include: utility theory; capital budgeting; portfolio theory; capital market equilibrium; multi-period valuation; and the cost of capital. Financial decision making is explored under both certainty and uncertainty and within the context of both perfect and imperfect markets. Prerequisites: FIN 6406 or equivalent.

FIN 6906 Independent Study in Finance (FI) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

FIN 6915 Master's Project in Finance (FI) (1-6). An individualized research project and report, which may include field experience with a firm or agency; library research; computer programming; or project development. The course should be taken during the last half of the student's graduate program. Consent of faculty tutor and Department Chairperson required.

FIN 6936 Special Topics in Finance (FI) (1-3). For groups of students who desire intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

FIN 6943 Finance Internship (FI) (1-3). Student placement within a financial institution, business firm or other organization for the purpose of providing practical experience to supplement theoretical classroom instruction. Periodic reports and conferences required. Permission of the instructor and Department Chairperson.

FIN 7527 Seminar in Investments (FI) (3). Examines analysis and measurement problems of investments. Includes the application of statistical techniques, current theoretical issues and empirical literature. Prerequisite: Permission of the instructor.

FIN 7536 Seminar in Futures Markets (FI) (3). A comprehensive examination of the literature in futures markets. Emphasizes the structure and pricing of futures, and risk-management via hedging and arbitrage. Prerequisite: Permission of the instructor.

FIN 7606 International Corporate Finance (FI) (3). The study of topics of research interest to international financial decisions. Topics include foreign exchange risk, international financial markets, and foreign exchange market efficiency. Prerequisite: Permission of the instructor.

FIN 7807 Seminar in Corporate Finance (FI) (3). Familiarizes students with recent developments in finance theory. Includes such topics as the influence of leverage, uncertainty and the cost of capital, agency theory and related topics. Prerequisite: Permission of the instructor.

FIN 7808 Financial Theory I (FI) (3). This course focuses on the theory of financial decision-making under certainty and risk. Includes investment under uncertainty, capital structure, dividend, asset valuation, and options pricing. Prerequisite: Permission of the instructor.

FIN 7809 Financial Theory II (FI) (3). This course focuses on the theory of financial decision-making under certainty and risk. Includes investment under uncertainty, capital

structure, dividend, asset valuation, and options pricing. Prerequisite: Permission of the instructor.

FIN 7810 Financial Theory III (FI) (3). This sequel to Financial Theory I and II focuses in on microfinance. Discusses issues primarily in corporate finance such as effects of taxation, agency theory, and signaling theory. Prerequisite: Permission of the instructor.

FIN 7811 Seminar in Financial Markets and Institutions (FI) (3). Examines recent developments in economic and financial theories as applied to topics such as the structure of financial markets and the economics of information and financial institutions. Prerequisite: Permission of the instructor.

FIN 7812 Seminar in Options and Contingent Claims (FI) (3). An examination of the theories of option valuation and arbitrage pricing, and their applications to security analysis, portfolio management and financial instrument valuation. Prerequisite: Permission of the instructor.

FIN 7816 Seminar in Portfolio Theory (FI) (3). Examines investment and portfolio theory, with emphasis on the historical development of the literature in this area and the recent analytical and empirical work. Prerequisite: Permission of the instructor.

FIN 7818 Foundations of Financial Models (FI) (3). Introduction to mathematical and economic models underlying the development of modern finance theory. Includes discrete and continuous time models in finance using stochastic calculus. Prerequisite: Permission of the instructor.

FIN 7845 Statistical Methods in Finance I (FI) (3). Estimation, and testing of various economic and financial models. Emphasis on econometric techniques to deal with various problems of single-equation models and introduction to simultaneous equation. Prerequisite: Instructor's permission.

FIN 7846 Statistical Methods in Finance II (FI) (3). Emphasis on econometric techniques and multi-variate statistics as applied in finance. Includes simultaneous equation models, multiple discriminant analysis and factor analysis. Prerequisite: Instructor's permission.

FIN 7855 Financial Economics I (FI) (3). An advance doctoral course covering selected advanced topics in microeconomic foundations and other topics related to business. Emphasis will be on economics of uncertainty, agency problems, information and signaling. Prerequisites: ECO 7115 or permission of the instructor.

FIN 7856 Financial Economics II (FI) (3). An advanced doctoral course covering selected advanced topics in the theory of macrofinance. Emphasis will be on financial intermediation. Prerequisites: ECO 7206 or permission of the instructor.

FIN 7906 Finance Doctoral Independent Study (1-6). Supervised research projects determined by professor and student. May involve conferences, supervised reading, and reports. Prerequisites: Consent of sponsoring professor and Chairperson required. (on demand)

FIN 7916 Finance Doctoral Research Project (1-6). Intensive research project conducted during the summer following the student's first and second years of

coursework. Each student develops his/her own research project under the supervision of a faculty member. Prerequisite: Graduate standing. (on demand)

FIN 7936 Finance Doctoral Seminar (3). College colloquium series featuring presenters from various academic disciplines and businesses. Prerequisite: (on demand).

FIN 7980 Ph.D. Dissertation (1-12). Original research that is supervised by a faculty committee and defended openly before the university committee. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

FIN 7981 Finance Dissertation Preparation (3). Preparatory background research and study to begin development of dissertation proposal. Students should be able to complete proposal by the end of the course. Prerequisites: Completion of TIER 1 courses. (on demand)

GEB 5895 Strategic Business Planning (3). This course focuses on clarifying ideas and processes for developing viable strategic plans. Students will develop a venture concept for an existing corporation and write a plan for implementation, including corp culture, task environment, external environment.

GEB 6116 Advanced Business Plan Development (3). This course is designed to help the student develop an effective written implementation plan for a new business venture; it deals with the critical decisions and actions that entrepreneurs must make in both planning and executing a new venture. Prerequisites: MAN 6805 or permission of the instructor.

GEB 6118 Starting and Growing a Professional Practice (3). This course is directed at the creation of sustainable and profitable professional practice for those in law, accounting, architecture, nursing, engineering, medicine, or any other profession.

GEB 6907 Community Service Learning (3). The integration of classroom theory with experimental learning in community service participation, development, and management of community service projects, especially those associated with the business community.

GEB 6941C Graduate Business Internship (3-6). This program allows graduate students to work in jobs significantly related to their major area of study and career goals. This is supervised work with carefully designed and monitored work assignments. Specific placement must be approved by the faculty advisor prior to enrollment. Work performed on the current job cannot be used for internship credit. Prerequisite: Graduate Students.

GEB 7906 Independent Study for Doctoral Students (1-15). Supervised research projects determined by professor and student. May involve conferences, supervised reading, and reports. Consent of sponsoring professor and chairperson required. (on demand)

GEB 7910 Quantitative Research Methods in Business (3). This course introduces a structured approach to quantitative research methods such as surveys, experiments, data analysis, and multi-criteria analysis of judgments.

GEB 7911 Qualitative Research Methods in Business (3). This course introduces a structured approach to

qualitative research in business. It includes study of methods such as case studies, ethnography, archival studies, and action research.

GEB 7916 Doctoral Research Project in Business (BA) (1-15). Intensive research project conducted during the summer following the student's first and second years of coursework. Each student develops his/her own research project under the supervision of a faculty member. Prerequisite: Graduate standing. (on demand)

GEB 7930 Seminar on Research in Emerging ICT and their Implications (3). This seminar will examine research on emerging information technologies, their application, and their implications for organizations and strategy.

GEB 7931 Seminar on Research in Emerging Organizations (3). Globalization, deregulation, and information-communication technologies are changing how organizations are coordinated and managed. This seminar examines emerging research in managing such organizations.

GEB 7932 Seminar on Research in Managing Distributed Operations (3). This seminar examines research issues arising as a consequence of global distribution of operations, as enabled by ICT and globalization of business.

GEB 7933 Seminar on Research in Measurement and Valuation in Knowledge Economy (3). Examination of research on measurement and valuation of digital, knowledge, and relationship assets in knowledge economy.

GEB 7934 Business as Dynamic Systems (3). This seminar course provides a systems theoretic framework for understanding and analyzing organizations. Hard and Soft Systems, Systems Dynamics, Complexity Theories are examined.

GEB 7935 Seminar on Research in Collaborative and Competitive Strategies in Global Economy (3). This seminar course examines research in emerging strategic transition from competitive to cooperative strategies in the context of internationalization and globalization.

GEB 7936 Doctoral Seminar in Business Administration (BA) (1). College colloquium series featuring presenters from various academic disciplines and businesses. (on demand)

GEB 7937 Seminar on Research in Acquiring and Implementing IS (3). Examination of research and theory on the acquisition, development, implementation of information systems.

GEB 7980 Ph.D. Dissertation (BA) (1-12). Original research that is supervised by a faculty committee and defended openly before the university committee. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

GEB 7981 Dissertation Preparation (1-10). Preparatory background research and study to begin development of dissertation proposal. Students should be able to complete proposal by the end of the course. Prerequisite: Completion of TIER 1 courses. (on demand)

ISM 6045 Current Economic and Social Implications of Information Systems (DS) (3). Effects and implications of

socioeconomic factors in the operation of information systems and interdependence with the legal and international business environment. Privacy and fraud; computer system purchase and lease contracts; economics of system design, selection and operation; electronic fund transfers and mail; international considerations. Prerequisites: MAN 6830 and MAN 3025.

ISM 6057 Web Management (3). This course provides students with techniques to manage and develop web projects including development environments, linkage between client and database. The course is designed to assist students in understanding how to manage and use web related techniques in an organization.

ISM 6106 Systems Analysis (DS) (3). A study of the systems approach to problem solving as it applies to any area of specialization. Consideration of the problems in determining system objectives; identifying system boundaries and constraints; marshaling resources for achieving system objectives; analyzing the sub-components of the system and their respective objectives; and managing the system. Prerequisites: MAN 6830, CGS 3403, and COP 2210.

ISM 6136 Data Mining and Analysis (3). Introduction to concepts of data mining, survey of techniques, models and applications. Comprehensive access and analysis of the organization data warehouse. Examination of knowledge discovery process to extract business rules and decision-aids. Prerequisites: Permission of Department and Introductory Statistics.

ISM 6155 Information Systems Development (DS) (3). Concepts and methods used in the analysis and design of MIS. Feasibility study, system flow charting, data requirements analysis, data design, user friendly systems design. Systems design project. Prerequisites: MAN 6830 or equivalent.

ISM 6156 Enterprise Information Systems (DS) (3). Introduces concepts of enterprise-wide computing, information architecture, process design, data models, and client/server computing.

ISM 6157 Enterprise System Configuration (DS) (3).

ISM 6158 Enterprise-Wide System Administration (DS) (3). This course will expose students to key aspects involved in the implementation and operation of the R/3 system and will provide the technical and conceptual foundation necessary for developing appropriate strategies and approaches for implementation and maintenance of an enterprise-wide system.

ISM 6159 Global Enterprise Management and Strategy (3). Global Enterprise Systems consist of 3 major components: Enterprise Resource Planning, Supply Chain Management, and Customer Relationship Management. This course examines each of these systems and explores how they support and overall business strategy.

ISM 6205 Database Management (DS) (3). The course addresses techniques for structuring and managing data in organizations. Discusses data concepts, data modeling, database requirements definition, conceptual, logical, and physical design, data administration, and distributed database management. Prerequisite: MAN 6830.

ISM 6217 Database Administration (3). Administration of the physical realization of database, which includes studying physical database design, understanding database server architecture, studying recovery, and tuning the database. Prerequisite: ISM 6205.

ISM 6222 Telecommunications Network (DS) (3). This course will focus on providing the student with fundamental understanding of the various concepts involved in modern data communication and networking installations, along with its implications in the design of information systems.

ISM 6225 Global Applications of Information Technology (3). Examines information technology use in the international arena, e.g. for communication within a multinational corporation, or communication with customers, suppliers in another country. Topics include: transborder data flow; global connectivity through telecommunications; IT transfer across national boundaries, management of IT in multinational corporations; case studies or global IT use. Prerequisites: MAN 6830 or equivalent.

ISM 6251 Emerging Information Technologies (3). This course covers emerging information and communication technologies that are changing the way the business is being operated in global economy.

ISM 6305 Information Systems Planning (DS) (3). An in-depth study of systems concepts, as they apply to information systems in organizations. Consideration of planning for systems development and its accomplishment through the phases of the life cycle, and of the overall management of the information systems function. Prerequisites: MAN 6830 and MAN 3025.

ISM 6307 Management of the Information Systems Function (3). Develop new CIO competencies: how enterprise competes or provides services, manage the IS organization like a business, and skills to gain support for incentives and maintain momentum in innovation.

ISM 6316 Project Management of Information Sciences (3). This course examines the defining characteristics of IT projects and introduces a variety of relevant techniques. The course includes project manager functions like managing scope, time, quality, and cost. Prerequisites: ISM 6205, ISM 6106, ISM 6156.

ISM 6326 Information Security (3). This course explores firewalls, digital signatures, encryption and other methods of security. It teaches students how to implement these techniques in the development and maintenance of information systems. Corequisite: ISM 6222.

ISM 6338 Information Systems Policy and Strategy (3). From the perspective of the CIO, students will develop and understanding of the strategic use of information systems, and learn how to develop strategies and tactics to achieve business goals.

ISM 6357 Computer Administration (DS) (3). The theory and computer management. Topics include selection, training, job and performance evaluation, and incentive schemes as they relate to key positions of systems analysis, programming, data preparation and entry, and project management. Special attention is given to human

resources management and development at various levels within the EDP department.

ISM 6405 Management Support Systems (DS) (3). Concept of decision support is examined in a management decision context. Types of applied decision support and expert systems in business are surveyed. Prerequisite: MAN 6830.

ISM 6423 Knowledge Management (3). This course explores the basic concepts of managing organizational intellectual capital, including appropriate information technologies ranging from Intranets to Artificial Intelligence.

ISM 6455 Microcomputer Applications in Business (DS) (3). Fundamentals and comparison of contemporary microcomputers. Extensive usage of available software for making business decisions. Emphasis on small business applications and cases. Student projects. Prerequisites: Computer programming proficiency, MAN 4504 and CGS 3300 or MAN 6501 and 6830.

ISM 6489 Electronic Commerce Management (3). Students will gain the knowledge needed to manage and develop windows and web-based applications and the use of web services for B2B and B2C applications. Students will learn about current frameworks that facilitate electronic commerce.

ISM 6507 Electronic Commerce Strategy (3). This course will teach students strategies for the electronic commerce landscape to help them develop and execute a business plan for creating an e-business startup. Prerequisites: Technology of EC; ISM 6316.

ISM 6930 Special Topics in Management Information Systems (DS) (1-6). To study the recent developments in the MIS field not otherwise offered in the curriculum, such as office automation, computer graphics, etc. Prerequisites: Advanced standing and department chairman approval.

ISM 7083 Deterministic Decision Models (DS) (3). This course deals with the optimal decision making and modeling of deterministic systems that originate from real life. These applications, which occur in government, business, engineering, economics, and the natural and social sciences, are largely characterized by the need to allocate limited resources.

ISM 7087 Probabilistic Decision Models (DS) (3). This course deals with the optimal decision making and modeling of probabilistic systems that originate from real life. These applications, which occur in government, business, engineering, economics, and the natural and social sciences, are largely characterized by the need to allocate limited resources.

ISM 7126 Seminar on Systems Analysis (DS) (3). A system theoretic approach to understanding and analyzing the role of information in organizations. Includes systems approach, systems dynamics, soft systems and complexity theoretic prospects.

ISM 7152 Seminar on System Acquisition and Implementation (DS) (3). Theory and research on methodologies, tools, and techniques for acquiring, developing, and implementing information systems in organizations.

ISM 7306 Seminar on Strategy and Information Resource (DS) (3). Theory and research on strategic perspective on the management of the information resources. Relates IT strategy and management to corporate strategy.

ISM 7345 Seminar on IS and Organizations: Design and Impact (DS) (3). Theory and research on the impact of IS on organizational design and structure.

ISM 7406 Decision Support Systems (DS) (3). Theory and research on the design of decision aids. Integrating models and data with a technological delivery system that supports unstructured problem-solving by executive.

MAN 5524 Advanced Production Management (DS) (3). More advanced methods in master planning, forecasting, capacity management, production activity scheduling/control, MRP and inventory management. This course has a professional orientation similar to the APICS certification guidelines. Prerequisites: MAN 4504 or MAN 6501, or Department Chairperson's approval.

MAN 5782 Managing in the 21st Century (3). This course is designed to identify important problems for managers in 21st Century. Includes responding to global issues, such as shift manufacturing trends; workplace ethics and diversity; cultural attitudes; the impact of new technologies.

MAN 5930 Seminar in Personnel Management (MA) (3). Overview and examination of the various aspects of the personnel management function.

MAN 6038 Family Owned Businesses (3). This course addresses the special issues facing family-owned and managed firms and gives an appreciation for the special dynamics in such firms and how to be professional managers in such organizations.

MAN 6051 Organization Change Process (MA) (3). Analysis of organizations including evolution of management thought and effects of technology and environment on organization design. Emphasis on concepts for managing change related to division of work, delegation and decentralization, leadership, motivation, job satisfaction; as well as planning, organizing, directing, and controlling.

MAN 6057 Managing Innovation (3). This course explores the process of managing innovation. In today's global marketplace, competition from all over the world forces firms to continuously upgrade their product offerings and ways of doing business. This course discusses how to be more creative, how to manage creatively, and how to implement innovation.

MAN 6066 Business Ethics (MA) (3). Practical approaches for addressing ethical conflicts in organizational administration. Emphasis will be placed on developing participants' ability to accurately diagnose organizational ethics problems and determine constructive solutions.

MAN 6085 Introduction to E-Business (3). Survey of the various types of E-Business, their economic, financial, accounting, ethical, legal and regulatory implications and their impact on major traditional industries. Also, examines how to build business models leading to profitable

business. Prerequisite: Acceptance of the degree program.

MAN 6086 Product and Service Development (3). The course presents the systematic process of product and service development in conjunction with the evolution of team projects, culminating (with a business plan class) in a venture capital and funding forum for new high-tech start-ups. Adopts a business and management emphasis to create worldclass products/internet services.

MAN 6121 Interpersonal Behavior and Analysis (MA) (3). A human interaction/human relations training laboratory, designed to increase both self-awareness and understanding of behavior dynamics in groups. Course is intended to enable students to broaden their conceptual understanding of human interpersonal communications and conflict.

MAN 6145 Intuition in Management (MA) (3). Interdisciplinary study of intuition and its applications in management. Apply learnings in a term project. Prepare Intuitive Experience Logs to discover intuition firsthand. Prerequisite: Computer Competency.

MAN 6157 Wellness Management (3). This course focuses on the management of employee well-being, broadly defined and including safety, security, mental, attitudinal, and health-related outcomes.

MAN 6167 Leadership in a Global Environment (3). The course is designed to provide the student with a clear understanding of current thinking in the area of leadership. It focuses on the holistic nature of leadership and the impact leaders have on individuals, groups, and organizations.

MAN 6204 Organization and Management Theory (MA) (3). Analysis and design of the structure and process of complex organizations. Effects of task uncertainty, growth, power, goals, and information technology on organization structure and control.

MAN 6209 Organization Design and Behavior (MA) (3). Covers how managers interact with organizations to accomplish complex tasks by examining how strategy, structure and systems interact with behavioral variables.

MAN 6245 Organizational Behavior (MA) (3). Individual, interpersonal, and small group behavior in complex organizations. Focus on behavior, its causes, and management interventions to improve organizational effectiveness. Research methods to study organizational behavior.

MAN 6265 Group Processes in Organizations (MA) (3). The social and psychological processes of organizational functioning. The roles played by small groups in organizational settings.

MAN 6295 Conflict in Organizations (MA) (3). A critical examination of the role and impact of interpersonal and intergroup conflict in organizations. Models as approaches to utilizing and resolving conflict toward constructive personal and organization ends will be emphasized.

MAN 6297 Labor Issues and Conflict Management (MA) (3). This course covers skills to enhance conflict management of disputes. It is designed to teach students

methods to productively manage interpersonal disputes between/among parties.

MAN 6311 Advanced Personnel Management (MA) (3). Attention is focused on the theory and practice of modern personnel management, as related to other management functions. Topics include selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resources management and development at various organizational levels.

MAN 6316 Human Resource Management Metrics (MA) (3). This course focuses on the linkage between human resources and the organization's financial plan. This includes budgeting, controlling, and measuring HRM impact.

MAN 6317 Critical Thinking in Human Resource Management (3). This course focuses on developing critical thinking skills to solve complex and multidimensional human resource management problems. The course will emphasize the analysis and discussion of cases.

MAN 6321 Personnel Selection and Placement (MA) (3). Individual differences and their measurement in personnel selection and job placement. Job design and redesign.

MAN 6327 High Involvement Human Resource Management (3). This course focuses on human resource practices that motivate and empower employees to excel on their job by fostering their participation and involvement in organizational decision-making.

MAN 6328C Applied Methods in Human Resource Management (MA) (3). This course focuses on the application of research design and measurement theory to solve human resource problems. The emphasis is on applied methodology rather than on statistical issues.

MAN 6331 Compensation Administration (MA) (3). An in-depth analysis of wages and salary administration, including such topics as job evaluation; wage incentive systems; and work sampling.

MAN 6336 Reward Systems Management (MA) (3). This course covers all aspects of compensation and reward systems such as the strategic alignment of compensation and other HR systems, job evaluation, merit – and skill-based pay, cost-effective benefit programs, and flexible pay.

MAN 6347 Performance and Talent Management (MA) (3). This course focuses on the development and implementation of effective performance management systems. Career development and electronic performance monitoring will be covered.

MAN 6351 Personnel Training and Development (MA) (3). Determining training needs. Training methods. The training staff. Supervisor development. Equal Employment Opportunity management.

MAN 6356 Professional Development Seminar I (1).

MAN 6357 Professional Development Seminar II (1).

MAN 6358 Professional Development Seminar III (1).

MAN 6359 Human Resource Knowledge Management (MA) (3). This course focuses on the development of the

organization's human capital. The identification of learning needs, current and future performance problems, and leadership development will be discussed.

MAN 6365 Staffing Organizations (MA) (3). This course focuses on the identification, recruitment, selection and promotion of successful employees.

MAN 6367 Career and Succession Planning (3). This course is based on an integrated "system thinking" model used to create and manage employee succession planning and leadership development processes. It also focuses on management of employee well-being including safety, security, mental and attitudinal and health-related outcomes.

MAN 6368 Human Resource Deployment (MA) (3). This course focuses on the staffing, organization, training, and management of rapid response operations.

MAN 6385 Human Resource Strategy and Planning (3). This course discusses the notion of strategic planning in the context of human resource management. Alignment of culture and strategy. HR inventories and forecasting.

MAN 6403 Employment Law and Human Resource Management (MA) (3). This course focuses on the legal and regulatory factors surrounding human resources management. The emphasis will be on creating awareness of legal constraints when making HR business decisions.

MAN 6405 Labor Relations (MA) (3). Examines the collective bargaining system in the United States from the viewpoint of the practitioner. Various aspects of the environment, structure, processes, issues and impact of collective bargaining are considered. Special attention is given to the negotiation and administration of agreements.

MAN 6411 Collective Bargaining Topics (MA) (3). An advanced course in labor relations for students with some background who desire more depth than that provided in introductory courses. Topics of contemporary interest, such as public sector collective negotiations, are treated at length.

MAN 6416 Corporate Negotiations (MA) (3). An examination and analysis of corporate negotiation strategies in such areas as collective bargaining, mergers, joint ventures, and with government regulation agencies. The legal environment affecting the negotiated process will be closely scrutinized, as well as internal and external political processes. Prerequisites: ACG 6026, MAN 6245, FIN 6406, MAR 6805.

MAN 6446 Negotiations (MA/ME) (3). Negotiations are the processes of creating agreements between two or more parties. This course will introduce students to the art of negotiations in business transactions. The class will include a wide variety of negotiation cases.

MAN 6501 Operations Management (DS) (3). This course covers analysis, design, and operations of organizational systems. The systems approach is used to provide a framework or general model of analysis, to which specific concepts, quantitative techniques, and tools can be related. The material presented has application to any organization of people and machines, including hospitals, governmental agencies, service organizations, and industrial concerns. Prerequisites: QMB 6357 or Pass QMB waiver exam.

MAN 6525 Managing for Total Quality (MA) (3). Addresses underlying management assumptions, methods, tools, culture and philosophy of total quality management - TQM.

MAN 6529 Seminar in Production Control Systems (DS) (3). The control systems for production operations automation and its impact on organizations. Integrated operational-simulation approach. Group and individual projects.

MAN 6559 Seminar in Management Science (DS) (3). New topics application areas will be explored. Lectures will relate to the latest advances in the theory and application of management science. Prerequisite: Instructor's approval.

MAN 6569 Managerial Decision-Making (DS) (3). This course will investigate and analyze the decision-making problems that managers face in business, volunteer organizations, government, and the public sector. Emphasis will be placed on providing a variety of decision-making experiences for the student. Prerequisites: QMB 6603 or equivalent.

MAN 6585 Productivity Management Seminar (DS) (3). Analysis of productivity in manufacturing and service organizations and methodology for productivity improvement. Extensive cases, projects, tours, and guest speakers. Prerequisite: Graduate students (or CBA certificate students).

MAN 6601 International Management (MA) (3). This course examines the functions of management in an international context: organization, communication, strategic planning, control, motivation, leadership, and human resource management. The topics include the cultural differences behind different managerial styles and customs.

MAN 6603 Problems in Comparative Management (MA) (3). Discussion of literature, readings, and cases, aimed at underscoring the differences and similarities in management behavior in different countries and cultures. General instruction in obtaining and utilizing comparative data on management differences.

MAN 6606 International Business Environment (MA) (3). A study of economic, political, legal and cultural variables affecting the organization. Emphasis will be on understanding and adapting to foreign country environments.

MAN 6608 International Business (MA) (3). This course examines the environmental variables affecting international operations, trade and investment theories, international institutions, and regional economic groups. It also focuses on international finance, international accounting, international marketing, and international management problems and issues.

MAN 6615 International Labor-Management Relations (MA) (3). Comparative analysis of selected industrial relations systems and impact on multinational firms and international labor movements. Emphasis on empirical models and management-oriented case studies.

MAN 6617 Managing Global Production and Technology (MA) (3). An exploration of the management of technology and its relationship to the dynamics of

globalization of production in both manufacturing and service industries. Prerequisite: MAN 6608.

MAN 6626 International Human Resource Management (MA) (3). Decisions about how to recruit, train, compensate, and manage global employees; cross-cultural differences in values; managing the international assignee.

MAN 6635 International Business Policy (MA) (3). An analysis of corporate strategies in a rapidly developing and changing world environment. Emphasis will be placed on forecasting, planning, and contingency strategies. The course is taught by case method and stresses the environmental and institutional constraints on decision making within the organization. Corporate executives are invited to attend whenever possible. Prerequisites: ACG 6026, MAN 6245, FIN 4066, and MAR 6805 and MAN 6603 or MAN 6608.

MAN 6675 Special Topics in International Business (MA) (3). For groups of students who wish to study intensively a particular topic, or a limited number of topics, in international business, not offered elsewhere in the curriculum. Prerequisites: Approval of the faculty advisor, Department Chairperson, and Dean.

MAN 6676 Global e-Business Environment (3). Systematic review of the economic, financial, socio-political and infrastructure environments in which global e-business activity takes place. Introduces methods to evaluate the opportunities and constraints for e-business in a country. Prerequisite: Intro to e-business.

MAN 6677 Emerging Markets (3). The course focuses on what managers of international firms large and small need to know to succeed in emerging markets, including the factors and forces that shape the competitive environment.

MAN 6678 International Entrepreneurship (3). This course is an introduction to entrepreneurship in international contexts and its role in economic development

MAN 6679 Master's Project in International Business (MA) (3). An individual research project on an international business problem, which may include field work (including internship), library research, computer modeling, or the use of an approved research methodology. Prerequisites: Assignment of faculty advisor and permission of Department Chairperson.

MAN 6695 Independent Study in Business (MA) (3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Assignment of faculty tutor and written permission of Department Chairperson, and Dean.

MAN 6703 Colloquium in Managing Organizational Ethics (MA) (1). Management issues, responsibilities, and techniques associated with public and private expectations for ethical performance of large-scale organizations.

MAN 6706 Crisis Management (MA) (3). Response to crises such as product recalls, product tampering, industrial accidents, and violence in the workplace.

MAN 6715 Business Environment and Public Policy (MA) (3). An examination of the economic, political, social and moral context in which management decisions are

made. The focus is on the public policy environment of business, whereby community direction is transformed into corporate behavior.

MAN 6726 Strategic Management (MA) (3). The use of cases, guest lectures, and gaming to integrate the analysis and measurement tools, the functional areas and public policy issues. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Should be taken in the last semester of master's program.

MAN 6727 Doing Business in the Marketplace (DS) (3). Give students practical lessons on the emerging world of the marketplace & teach them how to manage and make money there. Show how managing in the marketplace works with managing in the marketplace. Prerequisite: MAN 6830.

MAN 6746 Global Environmental Management (MA) (3). An exploration of the national, regional, and global forces emerging and influencing the management of the business firm's impact on the physical environment. A review existing and developing environmental management theories and control systems for business.

MAN 6758 Project Consulting (3). Introduction to the basic principles, methodologies and tools of modern business consulting and project management as practiced by the large management consulting firms. Prerequisite: MAN 6830.

MAN 6805 Entrepreneurship (MA) (3). A discussion of the general theories, principles, concepts and practices of entrepreneurship. Heavy emphasis is placed on lecture, readings, case studies and group projects.

MAN 6830 Organization Information Systems (DS) (3). Introduction to information systems and their role in organizations from a user's viewpoint. Survey and application of the basic concepts necessary for understanding information systems. Study of the main activities in the development cycle used to acquire information systems capability.

MAN 6830L Organization Information Systems Laboratory (DS) (1). Laboratory applications for MAN 6830.

MAN 6908 Independent Study in Business Environment (MA) (3). Independent project in the political, economic, social, cultural, ethical, or governmental relations environment of business. Directed study with a business environment faculty member. Prerequisites: MAN 6715, MAN 6606 and permission of the instructor.

MAN 6910 Research Methods in Management (MA) (3). Covers the research methods and analytical techniques most widely used in research in human resources and general management. Emphasis is on helping students to become more aware of current techniques and their applications.

MAN 6911 Research in Systems Development (DS) (3). Conduct an individual research project or thesis on a topic in the area of computer personnel, systems analysis and design, or other areas within the framework of the MIS program, subject to the instructor's approval. Prerequisite: ISM 6155.

MAN 6930 Master's Seminar in Management (MA) (1-3). An examination of recent research findings in selected areas of current concern. Emphasis is placed on readings; active discussion; and small, short-term action and research projects. The student may make a preliminary selection of his/her master's thesis or project topic. Prerequisites: Consent of faculty sponsor, Department Chairperson, and Dean.

MAN 6937 Special Topics in Business Environment (MA) (3). A review of a contemporary dimension of business' environment in a field of faculty specialization. Prerequisites: MAN 6523, MAN 6606 or equivalent.

MAN 6974 Master's Project in Management (MA) (1-6). Each student is required to develop and conduct an individual research project or thesis on a topic of interest. The topic will be chosen in consultation with a faculty member in the College.

MAN 7146 Leadership I (MA) (3). Course identifies leadership theories and research bearing on modern management practice. Behavioral, situational and transformational theories of leadership are emphasized, compared and evaluated.

MAN 7147 Leadership II (MA) (3). Draws on research and case studies for understanding of adaptive leadership in turbulent, uncertain environments. Emphasis on effective management of innovation, entrepreneurial activity and new ventures.

MAN 7148 Intuition in Management (3). In-depth study of the nature and development of the intuitive process emphasizing its role in management decision making and its relationship to rational problem solving. Prerequisite: Permission of the instructor. Corequisite: MAN 7148L.

MAN 7155 Fundamentals of Behavioral Research (MA) (3). Analytical tools to conduct systematic research. Methods of data collection in lab, survey and field research. Emphasis on principles of measurement and statistics to interpret/report behavioral data.

MAN 7206 Organizational Analysis (MA) (3). Develops skills in organizational problem-solving through applications of theory and research to actual problems. Emphasis on needs analysis, process consultation, teambuilding and action research.

MAN 7207 Theories of Organization (MA) (3). Organization functioning from a macro perspective; emphasis on evolution, structure, design and processes of complex systems. Study of communication/information networks, inter-group processes and control strategies.

MAN 7235 Management Philosophy and Strategy (MA) (3). Compares various cross-cultural management philosophies to structure and function of different types of organizations. Emphasis on how to develop and implement a management strategy for maximum productivity in different organizations.

MAN 7275 Organizational Behavior Management (MA) (3). An introduction to the study of human behavior in organizations. Emphasis is given to management of individual and group processes including conflict attitudes, decision making, motivation and stress.

MAN 7305 Human Resource Management (MA) (3). Personnel management topics including personnel selection, performance appraisal, training design, employee development, and compensation administration. Legal and practical issues are emphasized.

MAN 7412 Labor-Management Topics (MA) (3). Presents various aspects of the labor-management relationship to provide a contemporary perspective. Emphasis on structure, processes, strategies and legal issues in collective negotiation and industrial relations.

MAN 7529 Seminar in Operations Management (DS) (3). Concepts, tools and recent research developments in the design, planning and control of operations management systems in business and service organizations. Prerequisite: ISM 7083. Corequisite: ISM 7084.

MAN 7609 Comparative Management (MA) (3). Course focus is cross-cultural management, i.e., how cultural values influence managerial behavior. The problems of cross-cultural communications, leadership, motivation, and decision making are examined. Prerequisites: Admission to Doctoral program and completion of Doctoral core.

MAN 7616 Multinational Firm Global Strategy (MA) (3). Overview of the strategic management and international business concepts that frame strategic activity in MNCs. Competitive business strategies in global and multidomestic industries. Prerequisite: Completion of business Ph.D. core.

MAN 7620 International Business Operations I (MA) (3). Examination of the functional management, operations and concerns of international businesses. Emphasizes analysis of problems in managing joint ventures, licensing, barter, and technology transfer. Prerequisites: Admission to Doctoral program and completion of doctoral core.

MAN 7621 International Business Operations II (MA) (3). Focus on political, economic, and national security issues which influence IB operations or strategies. Examines techniques for political and economic risk, assessment and reactions to such influences. Prerequisites: Admission to Doctoral program and completion of doctoral core.

MAN 7640 International Business Research Methods (MA) (3). Overview of IB academic research, emphasizing topics, literature, methods, information sources, applications, problems, and journal characteristics. Prerequisites: Admission to business Doctoral program and completion of doctoral core.

MAN 7718 Analysis of Corporate Policy Methods (MA) (3). Links functional areas of management to provide integrated view of organization and public policy. Emphasis on measurement, analysis and conceptualization of organization as a totality of operations.

MAN 7895 Seminar in Management (MA) (3). Key concepts in management ranging from individual worker styles to business ethics. Emphasis on topics such as men and women in organization, decision making styles, and attribution management.

MAN 7910 Advanced Management Research (MA) (3). Covers applications of analytical methods in contemporary

management research. Emphasis is given to complex research design strategies including multivariate techniques and multidimensional scaling.

MAN 7984 Doctoral Research Seminar: Development and Utilization of Large Scale Datasets (3). Opportunities and issues associated with complex, multifaceted data set: representative samples and consensuses, multiple levels of analysis, diverse data sources, alternative weighting strategies, index formation and reliability: limits on inferences. Prerequisites: STA 6166, STA 6167, or equivalent.

MAR 5416 Marketing and Sales Strategies (3). This course discusses the nature and scope of marketing, and explores problems facing firms in developing existing markets and opening new ones. Includes sales skills and strategies and controlling sales operations. Prerequisites: Bachelor degree or equivalent.

MAR 6075 Current Issues in Marketing I (ME) (3). Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 3 credit hours of independent study in marketing. Prerequisite: MAR 6805.

MAR 6158 International Marketing (ME) (3). This course discusses the nature and scope of international marketing, and explores problems facing multinational firms and other international marketing organizations, together with strategies for foreign market penetration. Prerequisite: MAR 6805.

MAR 6336 Integrated Marketing Communication (ME) (3). A broad introduction to the field of integrated marketing communications and how it fits into the marketing plan. Discussion of objective setting, budgeting, and media planning, as well as the strategic planning and evaluation of advertising media, sales promotion, public relations, direct marketing, personal selling and marketing communications on the internet. Prerequisite: MAR 6805.

MAR 6406 Sales Management (ME) (3). Analysis of personal selling's roles in marketing strategy using detailed case studies on field sales management, working with channel organization, and planning and controlling sales operations. Prerequisite: MAR 6805.

MAR 6417 Sales Tactics and Strategies (3). New concepts in selling strategies and techniques, including internationalization and ethical issues in sales. These skills and processes will then be applied to sales management and global selling.

MAR 6506 Consumer Behavior (ME) (3). Modern comprehensive models of consumer behavior are utilized as a framework for understanding consumer decision processes. Prerequisite: MAR 6805.

MAR 6646 Managing Marketing Information (ME) (3). The role of research in providing information for marketing decision-making, including an examination of the research process and the tools available to the researcher. Prerequisites: MAR 6805 or permission of the instructor.

MAR 6675 Database Marketing (ME) (3). A practical approach to the use of database information to solve marketing problems. Emphasis is on obtaining, managing and using information about current and potential

customers. Topics include data acquisition, data mining, list segmentation and customer modeling, and direct marketing, relationship marketing and customer lifetime value applications.

MAR 6722 E-Marketing (3). Examines how e-business can transform the traditional marketing mix and how fundamental principles of marketing can be applied to develop e-business marketing plans. Prerequisite: MAN 6085 (Introduction to E-Business).

MAR 6805 Marketing Management in the Global Environment (ME) (3). Analysis and application of theory and problem solving for marketing management in the global environment. Emphasis will be on the role of marketing in the organization; planning the marketing effort; management of the marketing organization; control of marketing operations; and evaluation of the marketing contribution.

MAR 6816 Corporate Simulation (ME) (3). Course emphasis is on application and integration of concepts and tools, through participation in the marketing management of a firm in competition with other firms. The course's focal point is a computerized marketing management simulation. Prerequisites: ACG 6175, FIN 6406, and MAN 6501.

MAR 6819 Marketing Strategy (ME) (3). A study of strategic marketing planning through case analysis and selected readings. Emphasis is on planning and problem solving processes, particularly directing, planning, organizing, coordinating, and controlling as applied to a contemporary market-oriented organization. Prerequisites: MAR 6805 or equivalent.

MAR 6838 Brand Management (ME) (3). The focus of this course is to provide a sound understanding of the function, issues and challenges of the brand or product manager. The scope of the course embraces U.S. and international situations and emphasis will be placed on analysis, strategy development and practical decision making. The course will draw on the students' prior exposure to marketing management, research advertising and promotion and will provide insights and practice in application of these skills in the context of the product manager's roll in the enterprise.

MAR 6915 Independent Study in Marketing (ME) (1-6). Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required.

MAR 6936 Special Topics in Marketing (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

MAR 7205 Seminar in Channels of Distribution (ME) (3). Covers readings from the marketing, economics, logistics, organizational behavior, social psychology, and sociology literatures in developing a research perspective on channels of distribution.

MAR 7246 Seminar in International Marketing (ME) (3). Examines major topics and theories in the international marketing literature. Analyzes various perspectives on business activities and strategies in global markets.

MAR 7399 Seminar in Advertising and Persuasion (3). Covers the major topics and theoretical perspectives within the research literature addressing persuasive communications.

MAR 7507 Seminar in Consumer Behavior (ME) (3). Covers the major topics and theoretical perspectives in consumer behavior research, with emphasis on consumer decision making.

MAR 7622 Marketing Research Methodology I (ME) (3). Philosophy, concepts, methods of marketing research design. Experimental methods, sampling procedures, measurement techniques, other methodological considerations. Prerequisites: Successful completion of first year research methods requirements in a College of Business Ph.D. Program or permission of the instructor.

MAR 7623 Seminar in Marketing Environment (ME) (3). Examines the role of marketing professionals in responding to social, economic, political, technological and ecological changes in the business environment. Addresses issues of marketing ethics, social accountability, and the design of responsible marketing strategies.

MAR 7665 Seminar in Marketing Models (3). Examines the process of model building and the assumptions implicit in various modeling decisions. Emphasis is on learning to interpret, classify and critically evaluate models of marketing phenomena. Prerequisites: Calculus, Probability Theory, Statistics, and Matrix Algebra.

MAR 7786 Seminar in Marketing Theory (ME) (3). Intensive analysis of the nature and role of hypotheses, generalizations, and empirical regularities. Critical examination of theories of marketing and interaction of marketing theory and practice.

MAR 7815 Seminar in Foundations of Marketing Thought (ME) (3). Foundations of marketing, interdisciplinary relationships; reviews major research areas: the marketing mix, consumer choice models, segmentation, stochastic, and analytical models.

MAR 7817 Seminar in Marketing Management (ME) (3). Covers programs of research related to the management of marketing organizations and their role in improving organizational performance. Current and potential research topics will be considered from the perspective of leading scholars and marketing executives.

MAR 7849 Seminar in Services Marketing (ME) (3). Analyzes the nexus between services and marketing management. Identifies and appraises alternative corporate strategies within industries such as banking and finance, insurance, hospitality, entertainment and leisure, health care, and education.

MAR 7875 Sectorial Marketing (ME) (3). Course includes retailing, wholesaling, pricing, distribution, advertising, sales promotion and management, personal selling, international services and macromarketing; and marketing and economic development.

MAR 7979 Doctoral Research in Marketing (ME) (1-6). Research while enrolled for a doctoral degree under the direction of faculty members. Prerequisite: Permission of Department.

QMB 6357C Business Analysis for Decision Making (3). Review of the relevant quantitative techniques required for business analysis and decision making, including decision models, mathematical programming, statistics and forecasting. This is a WebCT and Excel based course. Prerequisites: College Algebra, computer literacy and working knowledge of Excel.

QMB 6603 Quantitative Methods in Management (DS) (3). Introduction to basic quantitative tools for the analysis of problems arising in the management of organizations, and the application of these tools to real-life problems. Prerequisites: College Algebra and completion of the Computer Programming Proficiency requirement.

QMB 6805 Deterministic Models for Management Analysis (DS) (3). Applications of deterministic models such as linear and nonlinear programming, network analysis (PERT), dynamic programming, and branch and bound algorithms to managerial problems of allocation, planning, scheduling, investment, and control.

QMB 6845 Simulation of Management Systems (DS) (3). Basic concepts of computer simulation of systems; application of these concepts to a variety of management problems. Industrial dynamics, urban dynamics, and large system simulation. Simulation in economic analysis, heuristic methods, and management games are covered. Prerequisites: MAN 6569 and a Computer Programming Language.

QMB 6855 Stochastic Models for Management Analysis (DS) (3). Applications of probabilistic models (such as queuing, inventory, and renewal) to their managerial problems.

QMB 6875 Stochastic Models for Project Management (DS) (3). Review of deterministic models and principles. Introduction to GERT, critical path methods, criticality index, and resource considerations in stochastic networks. Emphasis on operational decision-making, advanced topics, and individual projects. Students use the computer, and existing programs, to analyze hypothetical project networks, and learn to interpret the results in order to facilitate operational decisions. (F)

QMB 6905 Independent Study in Decision Sciences (DS) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of instructor, Department Chairperson and Dean required. P/F only.

QMB 6934 Seminar in Decision Sciences (DS) (1-3). An examination of recent research findings in selected areas of current concern. Emphasis is placed on readings; active discussion; and small, short-term action and research projects. Consent of instructor required.

QMB 6974 Project in Decision Sciences (DS) (1-6). Each student is required to develop and conduct an individual research project or thesis on a topic of interest. The topic will be chosen in consultation with a faculty member in the College and approved by the Department Chairperson.

QMB 7935 Seminar in Decision Sciences (DS) (3). Critical review and analysis of recent and important research developments in the area of decision sciences. Prerequisites: ISM 7083 and ISM 7087.

REE 6045 Real Estate Markets, Institutions and Practices (3). This course is designed to introduce the student to the nature, principles, and advanced fundamental and analytical practices of the real estate industry.

REE 6200 Real Estate Finance (3). Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction financing and permanent financing of residential and income-producing property. Prerequisites: REE 3040 or permission of the instructor.

REE 6305 Advanced Real Estate Investment Valuation (3). The course emphasizes measuring risk and rate of return under conditions of uncertainty in real estate investment decision-making. Simulation is used to face the problems of matching investment strategy to the physical property, leverage, income taxation, and organizational alternatives.

REE 6435 Real Estate Law (FI) (3). Analysis of best practices in real estate law. The course provides a detailed look at the contracts, ownership, structures, and laws impacting domestic and international real estate transactions.

REE 6935 Seminar in International Real Estate (3). Current trends and issues affecting industrial real estate on an international level. Topics include: the multinational corporation and its location decisions; foreign taxation; international trade and exchange rates.

TAX 5066 Tax Research and Reporting (AC) (3). A study of tax planning aspects of a variety of business and other transactions. Emphasis will be placed upon perceiving tax issues and conducting research to resolve them. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5106 Corporate Taxation (AC) (3). Tax implication of corporate formations, distributions, redemptions, liquidations, divisions, reorganizations, collapsibles, attributes, consolidations, S-Corp, AET and PHCs. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5405 Taxation of Estate and Gift (3). The study of the federal estate tax and federal gift tax provisions. Prerequisite: Permission of Accounting Certificate program advisor.

TAX 5406 Taxation of Estates and Trusts (AC) (3). Study of income tax aspects of decedents, followed by income taxation of estates and trusts (subchapter J). Special emphasis on throw-back rules, grantor trusts, charitable remainder trusts, and foreign trusts. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5506 International Dimensions of Taxation (AC) (3). Tax provisions affecting foreign corporations and non-resident aliens, as well as those tax provisions affecting U.S. person's business and investment activities outside the U.S. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5725 Tax Planning for Managers (AC) (3). An exploration of the concepts of federal income taxation and tax planning, from the point of view of the manager.

Prerequisites: ACG 6308 and permission of accounting certificate program advisor.

TAX 5875 Seminar in Taxation (AC) (3). An in-depth study of recent legislative, administrative, and judicial developments in taxation. Prerequisites: TAX 4001 or equivalent, and permission of Accounting certificate program advisor.

TAX 5904 Independent Study in Taxation (AC) (3). Individual conferences, supervised readings, reports on personal investigations. Prerequisites: Written Permission of the instructor, Accounting certificate program advisor, School director, and dean.

TAX 5936 Special Topics in Taxation (AC) (3). Intensive study for groups of students of a particular topic or topics not otherwise offered in the curriculum. Prerequisites: Written permission from the instructor, Accounting certificate program advisor, School director, and dean.

TAX 6005 Income Tax (AC) (3). A survey of federal income taxation, with emphasis on the taxation of individuals and corporations and the ethics of income tax accounting. Prerequisites: ACG 6115 and admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting. Not open to those with undergraduate accounting degrees.

TAX 6026 Value-Added Tax Strategies for Business Decisions (3). Development and implementation of a tax-based framework to assist business decision makers and their advisors in the design of sound strategies when considering alternative business transactions. Prerequisite: TAX 6065.

TAX 6065 Tax Research, Practice and Procedure (AC) (3). Study of the tax environment, the tax law and its interpretations, tax research tools, and of relevant practice and procedural mechanisms affecting taxation. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 6105 Taxation of Corporations I (AC) (3). The study of federal tax consequences of the formation and operation of corporations; distributions and redemptions; elections of Subchapter S status. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 6107 Federal Corporate Taxation (3). Study of the federal income taxation provisions affecting the formation, operations, liquidation, acquisition, and reorganization of Subchapter C corporations. Prerequisite: TAX 6065.

TAX 6115 Taxation of Corporations II (AC) (3). The study of federal tax consequences of the liquidation and reorganization of corporations; multiple corporations; advanced topics in corporate taxation. Prerequisite: TAX 6065.

TAX 6205 Partnership Taxation (AC) (3). The intensive study of the formation, operation, and dissolution of partnerships (general and limited). Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 6206 Taxation of Pass-Through Entities (3). Study of small business entities, emphasis on partnerships, limited liability companies and S corporations; includes choice, formation and operation of above and distributions, sales and exchanges of ownership in interests and transfers by death. Prerequisite: TAX 6065.

TAX 6305 State and Local Taxation (3). The Constitutional, statutory, regulatory, and judicial principles affecting state and local taxation of business transactions, with emphasis on Florida taxation. Prerequisite: TAX 6065.

TAX 6405 Estate and Gift Taxation (AC) (3). The study of the federal estate tax and federal gift tax provisions. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 6415 Fiduciary Accounting and Taxation (AC) (3). The study of the income taxation of estates, trust, and the beneficiaries thereof, including the determination of distributable net income, and throwback rules. The grantor trust and income in respect of a decedent is emphasized. The use of trusts in tax and estate planning is also explored. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 6445 Estate Planning (AC) (3). An in-depth discussion of the use of estate tax planning tools, such as lifetime gifts, life insurance, the marital deduction, the use of trusts, future interests, annuities, powers of appointment, charitable transfers, and post-mortem planning. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 6446 Wealth Transfers (3). Study of gift estate, and generation-skipping transfer taxes and taxation of estates and trusts; use of estate planning tools: lifetime gifts, life insurance trusts, marital bequests, post-mortem estate planning. Prerequisite: TAX 6065.

TAX 6505 International Taxation I (AC) (3). Federal income tax provisions applicable to non-resident aliens and foreign corporations. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 6507 Principles of International Taxation (3). Study of the federal income tax provisions applicable to foreign persons' U.S. income and to U.S. persons' foreign income. Prerequisite: TAX 6065.

TAX 6515 International Taxation II (AC) (3). Federal income tax provisions applicable to U.S. persons, business, and investment activities outside the U.S. Prerequisite: TAX 6065.

TAX 6726 Tax Planning for Managers (AC) (3). An exploration of the concepts of federal income taxation and tax planning, from the point of view of the manager. Prerequisites: ACG 6026 or equivalent and permission of Accounting advisor. Not open to EMST or MACC students.

TAX 6805 Tax Policy (AC) (3). A study of the tax accounting concepts and the judicial doctrines inherent in the federal tax law, tax planning, and tax policy. Prerequisite: TAX 6065.

TAX 6835 Taxation of Deferred Compensation (AC) (3). The taxation of qualified and non-qualified pension and profit-sharing plans, stock options, annuities, lump-sum distributions, death benefits, rollovers, self-employment plans, employee stock ownership plans, etc. Prerequisite: TAX 6065.

TAX 6875 Current Developments in Taxation (AC) (3). The study of recent legislative, administrative and judicial developments in taxation. Prerequisite: TAX 6065.

TAX 6876 Transactions in Property (AC) (3). An in-depth investigation into tax problems relating to basis, capital gains and losses, and nonrecognition provisions for transactions in property with special emphasis on personal property transactions and securities investments. Prerequisite: TAX 6065.

TAX 6877 Seminar in Taxation (AC) (3). Intensive study of a particular topic or a limited number of topics. The topics included in this course will depend upon the availability of faculty with expertise in the following special classes of tax problems: advanced corporate taxation; taxation of not-for-profit institutions; interstate, state and local taxation; and others, as current developments demand. Prerequisite: TAX 6065.

TAX 6905 Independent Study in Taxation (AC) (1-3). Individual conferences, supervised readings; reports on personal investigations. Prerequisite: TAX 6065.

TAX 6935 Special Topics in Taxation (AC) (1-3). Intensive study for groups of students of a particular topic(s) not otherwise offered in the curriculum. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the Director of the School of Accounting.

TAX 7067 Seminar: Special Topics in Taxation Research (AC) (3). Topics vary according to instructor and student interest in problems and issues on the frontier issues of taxation. Prerequisite: Permission of Doctoral advisor in Accounting.

TAX 7815 Seminar: Tax Policy: An Analysis of the Issues (AC) (3). An in-depth examination of the horizontal and vertical equity issues in taxation, the effects on income distribution, business decisions, foreign balance of payments, public finance issues, and economic policy. Emphasized are the areas of empirical research vis a vis legal research. Prerequisite: Permission of Doctoral advisor in Accounting.

TRA 5245 Transportation Logistics (ME) (3). Quantitative methods applied to solving problems in business logistics; mathematical and statistical models; optionalization theory and simulation. Problems selected from areas of physical distribution management, inventory control, mode selection, and facility locations.

TRA 5401 Transportation Operations and Carrier Management (ME) (3). Contemporary management techniques as applied to carriers; management-problems peculiar to transportation firms; economic analysis of marketing problems; capital formation; costs; pricing; labor relations; and government regulation.

TRA 6015 Graduate Survey of Transportation Management (ME) (3). Graduate survey of transportation, its elements, and their impact on society. History,

economics, and regulatory principles in transportation. Current policies and problems for all the major transportation modes.

TRA 6905 Independent Study in Transportation (ME) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

TRA 6936 Special Topics in Transportation (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

College of Business Administration

Executive Dean Joyce J. Elam
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Associate Dean, Alvah H. Chapman, Jr., Graduate School of Business Tomislav Mandakovic
Associate Dean, International Affairs and Projects Jerry Haar
Assistant Dean, Communications and Public Relations Sally M. Gallion
Assistant Dean, Undergraduate Advising Lynda K. Raheem
Assistant Dean, Advancement, Alumni, and Corporate Relations Annabelle Rojas
Director, School of Accounting Sharon Lassar
Associate Director, School of Accounting Manuel Dieguez
Director, Ph.D. Programs Arun Prakash
Director, Executive and Professional MBA Sarah Perez
Director, BBA+ Weekend and BBA+ Sunrise Donald Roomes
Director of Knight Ridder Center for Excellence in Management Edward Glab
Director, Center for International Business Education and Research (CIBER) Mary Ann Von Glinow
Executive Director, Eugenio Pino and Family Global Entrepreneurship Center Alan L. Carsrud
Director, Jerome Bain Real Estate Institute John Zdanowicz
Director, Marketing and Recruiting Luis Casas
Director, Executive and Professional Education Robert Garcia
Director, Budget and Administration Claudio Pico
Director, Career Management Services Barry Shiflett
Director, Technology Center Manoel Oliveira

Department Chairs:

Decision Sciences and Information Systems Christos Koulamas
Finance and Real Estate William Welch
Management and International Business Galen Kroeck
Marketing Walfried Lassar

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Cousins, Karlene, Ph.D. (Georgia State University), Assistant Professor, Decision Sciences and Information Systems
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- Desai, Renu, Ph.D.** (University of Central Florida), Assistant Professor, Accounting
- Dessler, Gary, Ph.D.** (City University of New York), Clinical Professor, Management and International Business
- Dickson, Peter R., Ph.D.** (University of Florida), Professor and Ryder Global Logistic Management Eminent Scholar, Marketing
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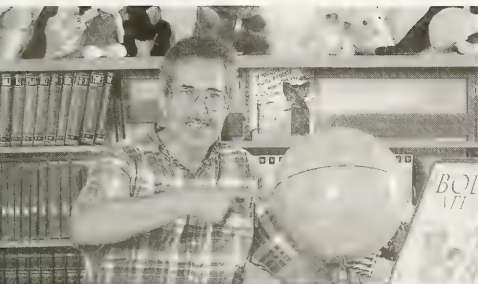
Schneper, William D., Ph.D. (*The Wharton School, University of Pennsylvania*), Assistant Professor and Faculty Director, International Business Honors Program, Management and International Business

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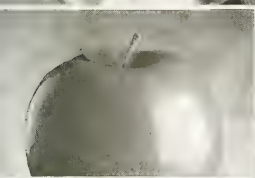
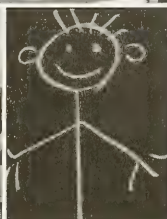
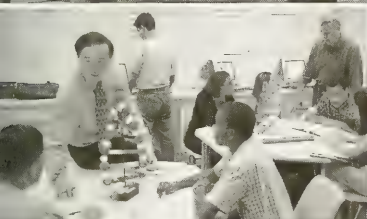
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FLORIDA INTERNATIONAL UNIVERSITY



COLLEGE OF
EDUCATION

College of Education

Interim Dean

Senior Associate Dean, Operations

Assistant Dean, Student Affairs

Kingsley Banya

Carmen Mendez

Marta M. Medina

The College of Education exists in an urban, multicultural setting and has a three-part mission. The first is to prepare professionals who have the abilities and dispositions to facilitate and enhance learning and development within diverse settings. The second is the discovery and dissemination of knowledge related to learning, teaching, and development. The third is the development of professional partnerships to promote meaningful educational, social, economic and political change. Our mission supports:

- Curricula that reflect sound theory and best practice.
- Qualified and diverse students and graduates.
- Qualified and diverse faculty active in teaching, research and service.
- Effective governance and organizational structure within an environment of open communication among faculty, administrators, staff, students and community.
- Collaborative and mutually beneficial partnerships with schools and other organizations.
- Visibility at local, state, national and international levels.
- Continuous improvement of the College.

The College offers instructional programs at the undergraduate and graduate levels, engages in research and program development activities, and provides field services to the educational community. The conceptual framework guiding education curricula and programs in the College is grounded in four core concepts that are central to the vision faculty have of professional educators graduating from the College's programs: intercultural, interconnectedness, inquiry, and instructional leadership.

The College, housed in the Sanford and Dolores Ziff Education Building (ZEB) at Florida International University—University Park, is fully accredited by the National Council for the Accreditation of Teacher Education, the Florida Department of Education, and the State University System.

To support its mission, the College is organized into three separate but related departments:

- ◆ Curriculum and Instruction
- ◆ Educational Leadership and Policy Studies
- ◆ Educational and Psychological Studies

Applicants to the College's programs should carefully examine the choices of major concentrations and program objectives. Because there are occasional revisions to the College of Education's curriculum during the academic year, some curriculum changes may not be reflected in the current catalog. Prospective students are advised to contact appropriate advisors to ask for current information regarding specific programs of interest.

General advisement is available by telephone: (305) 348-2768 for University Park, Broward residents may call (954) 355-5622 for the Broward Program. Additional information is available on the FIU website at www.fiu.edu or on the College of Education website at <http://education.fiu.edu>. Specific program advisement is

available by prearranged personal appointment with advisors at all locations.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Legislature and the State University System. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that the requirements have been met.

It is recommended that students meet with their advisors throughout the program to assure adequate progress.

Masters, Specialist, and Doctoral Degrees

Graduate studies offered by the College provide specialization in degree programs developed to reflect individual student interests. A graduate program may include courses, seminars, field experiences, research courses, theses, and dissertations, depending upon the student's level and area of emphasis.

Master of Science Degree Programs

Master of Science degree programs are offered in the following specialties and tracks:

Adult Education
 Art Education
 Counselor Education
 School Counseling
 Mental Health Counseling
 Rehabilitation Counseling
 Curriculum and Instruction
 Elementary Education
 English Education
 Learning Technologies
 Mathematics Education
 Modern Language Education
 Science Education
 Social Studies Education
 Special Education
 Physical Education
 Curriculum Development
 Early Childhood Education
 Educational Leadership
 Exercise and Sport Sciences:
 Exercise Physiology Track
 Foreign Language Education
 TESOL Track
 Higher Education Administration
 Human Resource Development
 International/Intercultural Education
 Parks and Recreation Management
 Recreational Therapy Track
 Leisure Services Management Track
 Physical Education

Physical Education K-12 Track

Sports Management Track

Reading Education

Special Education:

Exceptional Student Education/ESOL Track

Urban Education

Instruction in Urban Settings

Learning Technologies

Multicultural: Bilingual Education

Multicultural: TESOL

Urban Education

Applicants for admission to most Master's programs in Education must hold or qualify for Florida teacher certification in the appropriate area (see specific program area in this catalog for details). In some programs, applicants must also satisfy the following minimum requirements: A GPA of 3.0 in the last 60 semester hours of upper division undergraduate study and 1000 (total of verbal and quantitative) on the Graduate Record Examination (GRE). Applicants admitted with a pending GRE score must submit a test score within one semester to be fully admitted. Students should check with the department for specific admissions requirements.

Specific programs may have higher standards for admission. Having a minimum GPA and GRE score does not assure admission to a program. Admission is subject to the approval of program faculty.

Prior to formal admission to a graduate program, students may be approved to enroll in up to 12 semester hours of 5000 or higher level graduate credit as non-degree seeking students, 12 of which, if applicable to the major field of study and approved by an advisor, may be applied to the degree program if the grade received is "B" or higher.

Graduate students will complete at least 30 semester hours of study beyond the bachelor's degree to earn a Master of Science degree in education. However, specific programs may require more than the minimum number of hours. Students may transfer a maximum 6 semester hours taken at another accredited college or university toward a master's degree program having 30-45 semester hours, and a maximum 9 semester hours toward a program having more than 45 semester hours with approval from the advisor and the Graduate School.

Master's program students must maintain an overall GPA of 3.0 in order to graduate. No more than two grades of 'C' and no grades of 'C-' or less received in courses that are part of a master's degree program of study will be accepted toward graduation.

Admission requirements include those required of any graduate student in a M.S. level degree program. In addition, students applying into initial teacher preparation programs (e.g., MAT, School Counseling Track, School Psychology, Reading Education, and Educational Leadership) must pass all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. After July 1, 2002, students may substitute scores of 1000 in the GRE for the CLAST. Candidates must pass all three sections of the new Florida Teacher Certification Exam, have a GPA of 3.0, and successfully demonstrate the Florida Educator Accomplished Practices. Students who do not submit evidence of passing all 3 FTCE exams will not be cleared for graduation.

Note: Students who pass the CLAST prior to July 1, 2002 will be waived from taking the new General Knowledge

test. Please see your faculty advisor to be certain all requirements are met.

Master of Arts in Teaching Degree

Applicants who hold a bachelor's degree in a field other than education and wish to teach may want to pursue the MAT degree. These are state approved programs leading to State of Florida teacher certification in the following areas:

Art Education K-12

English Education 6-12/ESOL

French Education 6-12

Mathematics Education 6-12

Science Education

Biology 6-12

Chemistry 6-12

Physics 6-12

Social Studies Education 6-12

Spanish Education 6-12

Educational Specialist Degree Programs

Education Specialist degree programs are offered in the following specialties:

- Curriculum and Instruction
- Educational Leadership
- School Psychology

The programs require a minimum of 36 semester hours of course work at the University beyond the Master's degree. However, specific programs may require more than the minimum number of hours and may include six semester hours of thesis if that option is chosen.

Admission requirements and transfer of credit are the same as for the master's programs.

Doctor of Education Degree Programs

- Adult Education and Human Resource Development
- Curriculum and Instruction
- Educational Administration and Supervision
- Exceptional Student Education
- Higher Education

Doctor of Education Degree Program Specialties

Doctor of Education degree (Ed.D.) programs are offered in the following specialties and tracks:

- ♦ Adult Education and Human Resource Development
 - Vocational and Technical
 - Education Leadership
 - International and Intercultural
 - Development Education
- ♦ Curriculum and Instruction
 - Art Education
 - Early Childhood Education
 - Elementary Education
 - English Education
 - International and Intercultural Development
 - Education
 - Instructional Leadership
 - Learning Technologies
 - Mathematics Education
 - Modern Language/Bilingual Education
 - Reading Education
 - Science Education
 - Social Studies Education
- ♦ Educational Administration and Supervision

- ◆ Exceptional Student Education
- ◆ Higher Education

Doctor of Philosophy Degree Program Specialties

Doctor of Philosophy degree (Ph.D.) programs are offered in the following specialties:

- ◆ Language, Literacy and Culture
- ◆ Science, Mathematics and Learning Technologies
- ◆ Curriculum and Instruction

Advisement for these programs may be obtained by calling the appropriate department office or by contacting the Office of Advanced Graduate Studies at (305) 348-2723. Detailed admission requirements, program descriptions, and graduation requirements may be obtained from doctoral program advisors in specific areas and by examining program descriptions in this catalog. A Bachelor's degree from an accredited institution may be accepted for admission. Some programs may require a Master's degree from an accredited institution.

For all Teacher Prep and Counseling Field Experiences

Online information and the student teaching application is available at <http://education.fiu.edu>. Online submission deadline for Fall placement is due February 1; application for Spring placement for Elementary, Early Childhood and ESE majors is due June 1; for all other Spring placements the deadline is September 15. A set of hard copies is due to ZEB 230 for Fall placements by March 1; for Spring placement for Elementary, Early Childhood, and ESE majors is due July 1; for all other majors is due October 1.

Student Teaching and Fingerprint Requirements

State of Florida Certification requires all applicants to be fingerprinted and checked by state and local law enforcement agencies. Local public and private schools and systems may also require similar security procedures for field placements, student teaching and/or internships. Students with a CHR (criminal history record) should be prepared to promptly provide documentation of adjudication in order to facilitate review and determination of eligibility for placement in the district or school requested. Details regarding specific district requirements, deadlines and documentation are available in ZEB 230, Office of Field Experiences.

Curriculum and Instruction

George E. O'Brien, *Interim Chair and Associate*

Professor, Science Education

Cengiz Alacaci, *Assistant Professor, Mathematics Education*

Kingsley Banya, *Interim Dean and Professor, Curriculum Theory, International and Comparative Education*

Brian Biagioli, *Visiting Assistant Professor, Exercise and Physiology*

Charles Bleiker, *Associate Professor, Early Childhood Education*

Laura Blitzer, *Associate Professor, Physical Education*

Eric Brewster, *Assistant Professor, Science Education*

Chanh Chae, *Visiting Assistant Professor, Early Childhood*

David Y. Chang, *Professor, Art Education*

Charmaine DeFrancesco, *Associate Professor, Physical Education*

Laura Dinehart, *Visiting Assistant Professor, Early Childhood*

Lisbeth Dixon-Krauss, *Professor, Literacy Education*

Edward Dubinsky, *Visiting Professor, Mathematics Education*

Eric Dwyer, *Associate Professor, TESOL and Modern Language Education*

Mohammed K. Farouk, *Associate Professor, Social Studies/Global Education, Coordinator of Doctoral Programs*

Maria L. Fernandez, *Assistant Professor, Mathematics Education*

Joyce C. Fine, *Associate Professor, Literacy Education*

Gail P. Gregg, *Associate Professor, English Education*

Sharon W. Kossack, *Professor, Literacy Education*

Hilary Landorf, *Assistant Professor, Social Studies/Global Education*

Richard Lopez, *Associate Professor, Exercise Physiology*

Teresa Lucas, *Visiting Assistant Professor, TESOL*

Louis Manfra, *Assistant Professor, Early Childhood*

Nancy Marshall, *Associate Professor, Literacy Education*

Alicia Mendoza, *Associate Professor, Elementary Education*

Lynne D. Miller, *Associate Professor, Literacy Education*

Aixa Perez-Prado, *Assistant Professor, TESOL*

William M. Ritzi, *Instructor, Art Education*

Helen Robbins, *Instructor, Literacy Education*

Angela Salmon, *Assistant Professor, Early Childhood Education*

Linda Spears-Bunton, *Associate Professor, English Education*

M. O. Thirunarayanan, *Associate Professor, Learning Technologies*

Maria Tsalikis, *Visiting Assistant Professor, Reading, Literacy Education*

Leanne Wells, *Visiting Instructor, Math*

Robert Vos, *Associate Professor, Learning Technologies*

General Information

The Department of Curriculum and Instruction offers graduate programs leading toward the Master of Science,

the Education Specialist, the Doctor of Education degrees, and Doctor of Philosophy degrees.

Additionally the department offers a Master of Arts in Teaching (MAT) for students who do not hold a bachelor's degree in education. This degree leads to State of Florida teacher certification.

The department is committed to the generation and application of knowledge through research and service to the community.

Master of Arts in Teaching

Art Education (K-12)

Science Education

Biology Education (6-12)

Chemistry Education (6-12)

Physics Education (6-12)

English Education (6-12)/ESOL

French Education (6-12)

Mathematics Education (6-12)

Social Studies Education (6-12)

Spanish Education (6-12)

Master of Science Programs

Art Education

Curriculum and Instruction

Specializations in:

- Elementary Education
- English Education
- Modern Language Education
- Learning Technologies
- Mathematics Education
- Science Education
- Social Studies Education
- Special Education
- Physical Education
- Curriculum Development

Early Childhood Education

Foreign Language Education

TESOL Track

Reading Education K-12

Educational Specialist Program

Curriculum and Instruction

Specializations in:

- Art Education
- Early Childhood Education
- Elementary Education
- English Education
- Instructional Leadership
- Learning Technologies
- Mathematics Education
- Modern Language/Bilingual Education
- Reading Education
- Science Education
- Social Studies Education

Doctor of Education in Curriculum and Instruction

Specializations in:

- Art Education
- Early Childhood Education
- Elementary Education
- English Education
- International/Intercultural Development Education
- Instructional Leadership
- Learning Technologies

- Mathematics Education
- Modern Language/Bilingual Education
- Reading Education
- Science Education
- Social Studies Education

Doctor of Philosophy in Curriculum and Instruction

Specializations in:

- Language, Literacy and Culture
- Science, Mathematics, and Learning Technologies
- Curriculum and Instruction

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission.

Master of Arts in Teaching

This degree modifies the existing master's degree programs to accommodate candidates without certification in teaching. All prospective candidates must hold a baccalaureate degree appropriate to the State of Florida teacher certification area. This degree is no less rigorous than the advanced master degree program, but includes courses which provide the necessary background in professional education.

Admission Requirements

Entry requirements include a bachelor's degree or a strong minor (30 hours with a 3.0 or higher in the major subject area) in a certifiable teaching area such as the following: Art, Biology, Chemistry, English, Mathematics, Modern Languages, Social Sciences and History, or a minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework. Some programs also require a combined GRE score of 1000. A passing score on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I is also required. If taken before July 1, 2002, these tests may be waived if the candidate has a score of 1000 or higher on the GRE. In addition to the minimum GPA and the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader, Chair of the Department, Dean of the College, or his/her designee following a personal interview.

NOTE: Several MAT programs have different admissions requirements. Consult with Program Director for further information.

Graduation Requirements

1. An overall GPA of at least 3.0
2. Successful demonstration of all of the Florida Educator Accomplished Practices at the Preprofessional level
3. Passing score on all three sections of the Florida Teacher Certification Examination.

Note: If CLAST is passed prior to July 1, 2002, the new General Knowledge subtest may be waived.

MAT Requirements

All students admitted to this program will complete the following courses as well as the graduate program courses in each of the chosen fields.

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3

EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
RED 5339	Subject Related Reading	3
TSL 5361C	ESOL Issues and Strategies for Content Teachers	3
Special Teaching Lab: Area		3-6
Student Teaching (Practicum)		6

Applications to student teaching are due in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement. Check with the program leader early in program enrollment to determine Fall placement availability.

Specific program requirements vary depending upon applicant's bachelor's degree program, see program faculty for advisement. Contact the department (305) 348-2003 for complete program descriptions.

Master of Arts in Teaching Art Education (K-12)

Degree Program Hours (54)

Admission Requirements:

1. BFA or a Bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in Fine Arts and a minimum of 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework and a combined GRE score of 1000.
2. Passing scores on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. These tests may be waived if the candidate has a score of 1000 or higher on the GRE. For applicants who passed all sections of the CLAST exam after July 1, 2002, an official copy of passing scores for one of the following: CLAST (all portions); or General Knowledge Test (all sections); or Praxis I; and, a minimum of 1000 on the GRE (verbal and quantitative sections combined).
3. In addition to the minimum GPA and the CLAST, or General Knowledge, or the Praxis I, or the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader and Dean of the College.

Required Courses (54)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
RED 5339	Subject Related Reading	3
TSL 5361C	TESOL for Secondary Teachers	3
ARE 4316	Special Teaching Lab: Art K-5	3
ARE 4341	Special Teaching Lab: Art 6-12	3
ARE 5945	Practicum in Art Education	6
ARE 6140	Curriculum and Instruction in Art	3
ARE 6xxx	Art Education Workshop	9
ARE 6262	Organization and Coordination of Art	3
ARE 6746	Seminar in Art Education	3

**Master of Arts in Teaching Science
Education: Biology Education Track (6-12)**

Degree Program Hours (42)

Admission Requirements:

- 1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in Biology and a minimum of a minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework;
- 2. A minimum combined score of 1000 on the Graduate Record Examination (GRE) verbal and quantitative sections;
- 3. Two letters of recommendation, at least one of which must be from a person familiar with the applicant's undergraduate work and able to comment knowledgeably on his or her ability to perform graduate-level work;
- 4. A personal statement of 1,000 words or less explaining any personal and professional goals you plan to achieve with the accomplishment of the degree. Please list any recognitions of achievement that you have received (e.g. licenses, publications, awards). Provide any additional information that you would like considered in the evaluation of the application;
- 5. A résumé describing at least the past five years of employment history and significant community, professional, or college extracurricular activities;
- 6. Passing scores for one of the following exams: College Level Academic Skills Test (CLAST), General Knowledge Test (GKT), or Praxis I depending upon criteria below:

- a. For applicants who passed all sections of the CLAST exam prior to July 1, 2002, an official copy of passing scores on the CLAST exam or a combined score of 1000 or better on the GRE;
- b. For applicants who passed the CLAST July 1, 2002 or after, an official copy of passing scores for one of the following: CLAST (all portions); or General Knowledge Test (GKT) (all sections); or Praxis I; or a minimum score of 1000 or better on the GRE (verbal and quantitative sections combined).

Required Courses (42)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
ESE 5344C	Secondary Classroom Management	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 6215	Secondary School Curriculum	3
RED 5339	Subject Related Reading	3
TSL 5361C	ESOL Strategies for Content Teachers	3
SCE 4330	Secondary Science Teaching Methods	3
SCE 5945	Practicum: Science Education	6
SCE 6366	Teaching Science in Secondary School	3
SCE 6933	Science Education Seminar	3

**Master of Arts in Teaching Science
Education: Chemistry Education Track (6-12)**

Degree Program Hours (42)

Admission Requirements:

- 1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in Chemistry and a minimum of a minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework and a combined GRE score of 1000.
- 2. Passing scores on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. If taken before July 1, 2002, these tests may be waived if the candidate has a score of 1000 or higher on the GRE.
- 3. In addition to the minimum GPA and the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader, Chair of the Department, Dean of the College, or her designee following a personal interview.

Required Courses (42)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
ESE 6215	Secondary School Curriculum	3
RED 5339	Subject Related Reading	3
TSL 5361C	ESOL Strategies for Content Teachers	3
SCE 4330	Secondary Science Teaching Methods	3
SCE 5945	Practicum: Science Education	6
SCE 6366	Teaching Science in Secondary School	3
SCE 6933	Science Education Seminar	3

**Master of Arts in Teaching Science
Education: Physics Education Track (6-12)**

Degree Program Hours (42)

Admission Requirements:

- 1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in Physics and a minimum of a minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework and a combined GRE score of 1000.
- 2. Passing scores on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. If taken before July 1, 2002, these tests may be waived if the candidate has a score of 1000 or higher on the GRE.
- 3. In addition to the minimum GPA and the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader, Chair of the Department, Dean of the College, or her designee following a personal interview.

Required Courses (42)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
ESE 6215	Secondary School Curriculum	3
RED 5339	Subject Related Reading	3
TSL 5361C	ESOL Strategies for Content Teachers	3
SCE 4330	Secondary Science Teaching Methods	3

SCE 5945	Student Teaching	6
SCE 6366	Teaching Science in Secondary School	3
SCE 6933	Science Education Seminar	3

Master of Arts in Teaching English Education (6-12)/ESOL

Degree Program Hours (45)

Admission Requirements:

1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in Biology and a minimum of a minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework;
2. A minimum combined score of 1000 on the Graduate Record Examination (GRE) verbal and quantitative sections;
3. Two letters of recommendation, at least one of which must be from a person familiar with the applicant's undergraduate work and able to comment knowledgeably on his or her ability to perform graduate-level work;
4. A personal statement of 1,000 words or less explaining any personal and professional goals you plan to achieve with the accomplishment of the degree. Please list any recognitions of achievement that you have received (e.g. licenses, publications, awards). Provide any additional information that you would like considered in the evaluation of the application;
5. A résumé describing at least the past five years of employment history and significant community, professional, or college extracurricular activities;
6. Passing scores for one of the following exams: College Level Academic Skills Test (CLAST), General Knowledge Test (GKT), or Praxis I depending upon criteria below:

- a. For applicants who passed all sections of the CLAST exam prior to July 1, 2002, an official copy of passing scores on the CLAST exam or a combined score of 1000 or better on the GRE;
- b. For applicants who passed the CLAST July 1, 2002 or after, an official copy of passing scores for one of the following: CLAST (all portions); or General Knowledge Test (GKT) (all sections); or Praxis I; or a minimum score of 1000 or better on the GRE (verbal and quantitative sections combined).

Required Courses (45)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
ESE 5344C	Secondary Classroom Management	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 6215	Secondary School Curriculum	3
RED 5339	Subject Related Reading	3
TSL 5372C	ESOL Issues and Principles I	3
TSL 5373C	ESOL Issues and Practices II	3
LAE 5336C	Special Teaching Lab: English	3
LAE 5945	Practicum: English	6
LAE 6339	Teaching English in the Secondary School	3
LAE 6935	Seminar in English Education	3

Master of Arts in Teaching French Education (6-12)

Degree Program Hours (54)

Admission Requirements:

1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in the language of study and a minimum of a minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework and a combined GRE score of 1000.
2. Passing scores on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. If taken before July 1, 2002, these tests may be waived if the candidate has a score of 1000 or higher on the GRE.
3. In addition to the minimum GPA and the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader, Chair of the Department, Dean of the College, or her designee following a personal interview.

Prerequisites: (30)

30 credit hours at the junior or senior level including:

Introduction to Linguistics	3
Grammar/Syntax/Composition	12
Phonetics/Phonology	3
Culture/Civilization	3
Literature	6

Required Courses (54)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
ESE 6215	Secondary School Curriculum	3
FLE 5945	Practicum: Modern Language	6
RED 5339	Subject Related Reading	3
FLE 5xxx	FLES Methods	3
FLE 6336	Methods of Teaching Modern Language	3
FLE 6938	Seminar in Second Language Testing and Evaluation	3
	Grammar/Composition/Syntax course 5000 level or higher	3
	Specialize in language when possible	3
	Culture/Civilization course 5000 level or higher/Specialize in language when possible	3
	Linguistic course 5000 level or higher/Specialize in language when possible	3
	Phonetics/Phonology preferred	3
	Literature course 5000 level or higher/Must be in language of specialization	3
	Second Language Acquisition course	3
LIN 5720	Second Language Acquisition	3
	or	
TSL 5245	Developing Language and Literacy	3

Master of Arts in Teaching Mathematics Education (6-12)

Degree Program Hours (45)

Admission Requirements:

1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in Mathematics and a minimum of a

minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework and a combined GRE score of 1000.

2. Passing scores on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. If taken before July 1, 2002, these tests may be waived if the candidate has a score of 1000 or higher on the GRE.

3. In addition to the minimum GPA and the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader, Chair of the Department, Dean of the College, or her designee following a personal interview.

Required Courses (45)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
ESE 6215	Secondary School Curriculum	3
RED 5339	Subject Related Reading	3
TSL 5361C	ESOL Strategies for Content Teachers	3
MAE 4333C	Special Teaching Lab: Mathematics	3
MAE 5655	Computers in Mathematics Education	3
MAE 5945	Practicum: Mathematics	6
MAE 6336	Teaching Mathematics in the Secondary School	3
MAE 6899	Seminar in Mathematics Education	3

Master of Arts in Teaching Social Studies Education (6-12)

Degree Program Hours (45)

Admission Requirements:

1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in History and/or the Social Sciences and a minimum of 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework and a combined GRE score of 1000.

2. Passing scores on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. If taken before July 1, 2002, these tests may be waived if the candidate has a score of 1000 or higher on the GRE.

3. In addition to the minimum GPA and the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader, Chair of the Department, Dean of the College, or his designee following a personal interview.

Required Courses (45)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	History of Education	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
ESE 6215	Secondary School Curriculum	3
RED 5339	Subject Related Reading	3
TSL 5361C	ESOL Strategies for Content Teachers	3
SSE 5381	Developing a Global Perspective	3

SSE 5385	Special Teaching Lab: Social Studies	3
SSE 5945	Practicum in Social Studies Education	6
SSE 6633	Teaching Social Studies in the Secondary School	3
SSE 6939	Seminar in Social Studies Education	3

Master of Arts in Teaching Spanish Education (6-12)

Degree program Hours (54)

Admission Requirements:

1. A bachelor's degree or a strong minor (30 hours with a 3.0 GPA or higher) in the language of study and a minimum of a minimum 3.0 cumulative GPA or higher for the last 60 hours of upper division coursework and a combined GRE score of 1000.

2. Passing scores on all sections of the CLAST, or the General Knowledge Exam, or the Praxis I. If taken before July 1, 2002, these tests may be waived if the candidate has a score of 1000 or higher on the GRE.

3. In addition to the minimum GPA and the combined GRE score, the applicant must receive an affirmative recommendation from the designated Program Leader, Chair of the Department, Dean of the College, or her designee following a personal interview.

Prerequisites: (30)

30 credit hours at the junior or senior level including:

Introduction to Linguistics	3
Grammar/Syntax/Composition	12
Phonetics/Phonology	3
Culture/Civilization	3
Literature	6

Required Courses (54)

EDF 5443	Measurement and Evaluation in the Classroom	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDP 5053	Educational Psychology: Principles and Applications	3
EEX 6051	Educational Needs of Students with Exceptionalities	3
ESE 5344C	Secondary Classroom Management	3
ESE 6215	Secondary School Curriculum	3
RED 5339	Subject Related Reading	3
TSL 5361C	ESOL Strategies for Content Teachers	3
or		
TSL 5142	Curriculum Development	3
FLE 5xxx	FLES Methods	3
FLE 5945	Practicum: Modern Language	6
FLE 6336	Methods of Teaching Modern Language	3
FLE 6938	Seminar in Second Language Testing and Evaluation	3
Grammar/Composition/Syntax course 5000 level or higher		
Specialize in language when possible		3
Culture/Civilization course 5000 level or higher/Specialize in language when possible		3
Linguistic course 5000 level or higher/Specialize in language when possible		
Phonetics/Phonology preferred		3
Literature course 5000 level or higher/Must be in language of specialization		3
Second Language Acquisition course		
LIN 5720	Second Language Acquisition	3
or		
TSL 5245	Developing Language and Literacy	3

Advanced Master of Science Degree Programs

Applicants for admission to advanced Master's programs in Education must hold or qualify for Florida teacher certification in the appropriate area. Early Childhood Education applicants must hold or qualify for Florida certification or equivalent in elementary, special or early childhood education (including practical teaching experience requirement). All applicants must also satisfy Board of Education admission requirements: a Bachelor's Degree or pass State of Florida Certification Exams, a GPA of 3.0 or higher for the last 60 hours of upper division coursework. Some programs require 3 letters of recommendation, and an autobiography. Applicants admitted with a pending GRE score must submit test score within one semester to be fully admitted or become a candidate for graduation. Applicants to some programs, regardless of GPA, must submit GRE score of 1000.

Master of Science in Art Education

Degree Program Hours: (36)

Education, including Art

Professional Studies (6)

EDF 5481 Foundations of Educational Research 3

Select one of the following:

EDE 6205 Curriculum Design for Childhood Education 3

or

ESE 6215 Secondary School Teaching Field 3

or

EEX 6051 Education of Students with Exceptionalities 3

or

EDS 6050 Supervision and Staff Development 3

or

EDF 5955 Field Study Abroad 3

or

EDF 6211 Psychological Foundations of Education 3

Art/Art Education (30)

ARE 6140 Curriculum and Instruction in Art 3

ARE 6262 Organization and Coordination of School and Community Art Programs 3

ARE 6746 Seminar in Art Education: Contemporary Issues and Research 3

ARE 6925-29 Workshop in Art Education 6

Art History 3

Studio Art (Three semester hours credit for each studio course) 12

Master of Science in Curriculum and Instruction

The Master of Science in Curriculum and Instruction program requires 36 semester hours beyond the bachelors degree. Up to 6 semester hours of graduate credit may be transferred into the masters program. The Master of Science in Curriculum and Instruction program includes five required components:

1. Curriculum and Instruction Core (9 semester hours)
2. Curriculum and Instruction Elective (3 semester hours)
3. Research Core (6 semester hours)
4. Content Specializations (18 semester hours)
5. Professional Conference (Exhibition)

Admission Requirements

Applicants for admission into the Master of Science in Curriculum and Instruction program must meet the minimum University Graduate School admission criteria. Admission to the masters program will be based on the following criteria:

1. Hold or qualify for teacher certification in an appropriate area. For the Elementary Education specialization, applicants must hold or qualify for Florida certification or equivalent in elementary education, early childhood education, or special education (including practical teaching experience).
2. A bachelor's degree in an appropriate area from an accredited institution.
3. A GPA of 3.0 in the last 60 semester hours of upper division undergraduate study.
4. Two (2) letters of recommendation to support the application.
5. A statement of personal philosophy/professional goals consistent with the objectives of the masters program.
6. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the IBT TOEFL or 6.3 overall on the IELTS is required. (Exceptions: Students who completed an undergraduate or graduate program from a U.S. institution or accredited higher education institution in other English-speaking countries).

Transfer of Credit

Students may be allowed to apply up to six semester hours of course work taken at accredited institutions to the masters program requirements with the following stipulations:

- The student received a grade of 3.0 or better on a 4.0 scale
- The course was relevant, as judged by the Admissions Committee
- The course is listed on an official transcript received by the Graduate Admissions Office
- The course will be no older than 6 years at the time of graduation with a masters degree.
- The course meet all University requirements.

Admission Procedures

In order to begin the masters program, a student must be accepted into the University Graduate School and the program in Curriculum and Instruction. Admission procedures are as follows:

1. Complete the online graduate admission application available at <http://gradschool.fiu.edu>. Official transcripts of all prior college work must be sent to the Graduate Admissions Office at Florida International University, PO Box 659004, Miami, Florida, 33265 to complete the application for admissions. Omission of any one of these items will delay the processing of the application.
2. Two letters of recommendation must be sent to the Graduate Program Director, Department of Curriculum and Instruction, College of Education, ZEB 314, Florida International University, Miami, FL 33199, by those who have knowledge of the applicant's prior professional experience (e.g. a supervisor) or of the applicant's ability to perform graduate work (e.g., a

professor). Letters should attest to the applicant's intellectual ability, motivation, maturity, and potential.

3. Once the University application procedures are completed, the Graduate Admissions Office forwards the applicant's materials to the Department of Curriculum and Instruction. The file is then forwarded to the program faculty for review. On the basis of its review, the program faculty will (1) recommend admission, (2) withhold a decision and request additional information from the applicant, or (3) deny admission.
4. Admission to the program is determined by the program faculty on the basis of its evaluation of the applicant's academic and professional credentials.
5. Meeting the minimum admission requirements does not guarantee admission into the program.

Program of Study

Curriculum and Instruction Core (9 semester hours)

EDG 6250	Curriculum Development	3
EDG 6627	Seminar: Trends and Issues in Curriculum and Instruction	3

Special Methods of Teaching

Choose one of the following:

EDE 5267	Education of the Child in Urban Society (Required for Elementary, Special Education, and Curriculum Development Specializations)	3
EME 5315	Instructional Media	3
FLE 6336	Methods of Teaching Modern Language	3
LAE 6339	Teaching English in the Secondary School	3
MAE 6336	Teaching Mathematics in the Secondary School	3
PET 5716	Analysis and Observation of Teaching in Phys. Ed.	3
SCE 6366	Teaching Science in the Secondary School	3
SSE 6633	Teaching Social Studies in the Secondary School	3
TSL 6350	Troublesome English: Grammar for ESOL Teachers	3

Curriculum and Instruction Elective (3 semester hours)

Advisor approved elective in Curriculum and Instruction 3

Research Core (6 semester hours)

EDF 5481	Foundations of Educational Research	3
EDF 6487	Field Research for Educators	3

Content Specialization (18 semester hours)

Choose from one of the following specializations:

1. Elementary Education
2. English Education
3. Learning Technologies
4. Mathematics Education
5. Modern Language Education
6. Science Education
7. Social Studies Education
8. Special Education
9. Physical Education
10. Curriculum Development

Professional Conference (Exhibition)

Content Specializations

1. Elementary Education (18 semester hours)

Select 4 graduate courses (with Advisor approval) from the following areas in the College of Education (no more than 6 semester hours from any one area):

- Art Education
- Early Childhood Education
- Mathematics Education
- Reading
- TESOL
- Science Education
- Social Studies Education
- Special Education

Select 2 graduate courses (with Advisor approval) from the following areas in the College of Arts and Sciences:

- Linguistics
- Psychology
- Sociology

2. English Education (18 semester hours)

Select (with Advisor approval) 6 graduate level courses in English/English Education.

3. Learning Technologies (18 semester hours)

EME 6408	Microcomputers as Teaching Tools	3
EME 5602	Multimedia in the Classroom	3
EME 6412	Educational Courseware Evaluation and Development	3
COP 6007	Computer Programming Concepts	3
CGS 6834	Programming for the Web	3
EME 6905	Directed Study: Computer Education	3

4. Mathematics Education (18 semester hours)

Select (with Advisor approval) 6 graduate level courses in Mathematics/Mathematics Education.

5. Modern Language Education (18 semester hours)

Grammar/Composition/Syntax (Specialize in language when possible)	3	
Culture/Civilization (Specialize in culture of target language when possible)	3	
Linguistics (Specialize in language when possible; course in phonology or phonetics preferred)	3	
Literature (in the target language)	3	
Applied Linguistics	3	
TSL 5245	Developing Language and Literacy	3
TSL 6908	Field Component	3
	or	
FLE 6925	Special Topics in Second Language Education	3

6. Science Education (18 semester hours)

Select (with Advisor approval) 6 graduate level courses in the Sciences/Science Education.

7. Social Studies Education (18 semester hours)

Select (with Advisor approval) 6 graduate level courses in the Social Sciences/Social Studies Education or Area Studies: African-New World Studies, Asian Studies, Latin American and Caribbean Studies, European Studies. Students are encouraged to take courses with a global/international perspective.

8. Physical Education (18 semester hours)

PET 5216	Sports Psychology	3
PET 5052C	Motor Learning for Sport Perf.	3
PET 5256	Sociology of Sport	3
PET 5426	Curriculum in Physical Education	3
or		
PET 5436	Physical Education Curriculum: K-8	3
PET 5948	Practicum in Physical Education	3

PET 6597	Survey of Research in Phys. Ed.	3
9. Special Education (18 semester hours)		
EEX 5075	Teaching Students with Disabilities in Inclusive Settings*	3
EEX 5068	Instructional Practices ESE I	3
EEX 5608	Behavioral Approaches to Classroom Learning Management	3
EEX 5766	Instructional and Assistive Technology in Special Education	3
EEX 6227	Assessment of Students with Exceptionalities	3
EEX 6106	Acquisition of Speech and Language Skills	3

*If students have already taken EEX 3071 at the undergraduate level, then they will instead take EEX 6051 Education of Students with Exceptionalities.

10. Curriculum Development (18 semester hours)

EDG 5417	Learning Styles Applications	3
EDE 6205	Curriculum Design in Childhood Education	3
ESE 6215	Secondary School Curriculum	3
EDG 6286	Curriculum Evaluation	3
EDG 6920	Colloquium in Curriculum and Instruction	3
EDG 7692	Politics of Curriculum	3

Master of Science in Early Childhood Education

Degree Program Hours: (36)

Required Sequence of Courses:

EEC 6261	Education Programs for Younger Children	3
EDF 6608	Social Philosophical and Historical Foundations of Education	3
LAE 5415	Children's Literature	3
EDF 6211	Psychological Foundations of Education	3
LAE 6305	Instruction in Early Childhood Language Arts	3
EDF 5481	Foundations Educational Research	3
RED 6305	Instruction in Early Childhood Reading	3
SCE 6306	Instruction in Early Childhood Science	3
MAE 6305	Instruction in Early Childhood Mathematics	3
EEC 6xxx	Arts and Technology in Early Childhood Education	3
SSE 6305	Instruction in Early Childhood Social Studies	3
EEC 6678	Research in Early Childhood Education	3

Entry to Program: Fall Semester – Students are encouraged to meet all admission requirements prior to beginning the program; however, students may take a maximum of twelve (12) semester hours of course work applicable to the program prior to admission.

Graduation Requirements: Students must meet all Program, Department, College, Graduate School, and University graduation requirements. Grades of "C-" or below will not be counted towards meeting program requirements.

Thesis Option: Students may opt to extend the MS program (3 to 6 additional thesis credit hours) by request.

Master of Science in Exercise and Sports Science: Exercise Physiology Track

The Exercise Physiology Track offers two specializations: Cardiac Rehabilitation/Adult Fitness and Strength and Conditioning/Adult Fitness. The Cardiac Rehabilitation/Adult Fitness Specialization focuses on the physiological effects of exercise and training in the rehabilitation of cardiac disorders and the prevention of disease. This specialization enables students to develop the competencies required by the American College of Sports Medicine for certification as an Exercise Specialist, a Health/Fitness Instructor, and a Health/Fitness Director. It also prepares students for the National Strength Professional Association's Certified Conditioning Specialist and the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist. The Strength and Conditioning/Adult Fitness specialization emphasizes the effects of training on the improvement of athletic performance and the prevention of disease in healthy adult populations. This specialization enables the student to develop the competencies required by the National Strength and Conditioning Association for certification as a Certified Strength and Conditioning Specialist. In addition, this track enables students to develop the competencies required by the American College of Sports Medicine for certification as a Health/Fitness Instructor and a Health/Fitness Director. It also prepares students for the National Strength Professionals Association Certified Conditioning Specialist certification. FIU has been recognized by the National Strength and Conditioning Association as being an institution that prepares individuals to work in the strength and conditioning field.

Degree Options

Students in either specialization of the Exercise Physiology Track may select one of two degree options: the Research Project Option or the Advanced Practitioner Option. The Research Project Option requires a minimum of 33 credits and the completion of a faculty supervised research project. The Research Project Option is highly recommended for students hoping to enter a Ph.D. program. The Advanced Practitioner Option requires a minimum of 36 credits and the successful completion of a comprehensive examination.

Admission Requirements

An applicant for admission to graduate study must meet the existing criteria set forth by the Florida Board of Education. Presently, these are a 3.0 GPA for the last 60 hours of upper-division coursework, a resume, three letters of professional recommendation, and a scholarly writing sample.

Prerequisites Classes

Students selecting the Cardiac Rehabilitation/Adult Fitness Specialization should have one class in each of the following areas: exercise physiology, kinesiology, anatomy, physiology, and nutrition. Students selecting the Strength and Conditioning/Adult Fitness Specialization should also have Advanced Concepts in Strength and Conditioning or its equivalent. In lieu of this class, a student may substitute CSCS certification or provide documentation demonstrating experience in developing strength programs.

Degree Hours:**Common Core Courses**

PET 5355	Advanced Exercise Physiology
PEP 5115	Health/Fitness Instructor
PET 5693	Exercise Prescription for Special Populations
PET 6775	Health/Fitness Director
EDF 5481	Analysis and Application of Educational Research
PET 5368	Exercise, Diet, and Weight Management

Cardiac Rehabilitation/Adult Fitness Specialization

PET 5521	Exercise Test Technology
PEP 5116	Exercise Prescription
PET 5931	Special Topics in Exercise Science

Strength and Conditioning/Adult Fitness Specialization

PET 5xxx	Organization and Administration of Strength and Conditioning Programs
PET 5391C	Comprehensive Conditioning of Elite Athletes
PET 5xxx	Advanced Analysis of Sport Movement

Research Project Option

Students selecting the Research Project Option will enroll in 6 credits of Directed Study in Exercise Physiology (PET 5906).

Advanced Practitioner Option

Students selecting the Advanced Practitioner Option will enroll in 9 credits of electives and/or internship. A student must complete a minimum of 3 credits of internship, but may elect to complete up to 9 credits of internship. Thus, a student may choose to complete 0-6 credits of electives, bringing the total number of credits to 36 required to graduate from this option.

Master of Science in Foreign Language Education**Degree Program Hours: (33)****Prerequisites**

One course in general linguistics or the successful completion of LIN 3010 or LIN 3013.

EDF 5481	Foundations of Educational Research	3
EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
FLE 6336	Methods of Teaching Modern Language	3
FLE 6938	Seminar in Second Language Testing	3
Teaching Field: Modern Language		15
Grammar/Composition/Syntax		3
Specialize in language when possible Culture/Civilization		3
Specialize in culture of target language when possible Linguistics		3
Specialize in language when possible; course in phonology or phonetics preferred Literature in the target language		3
Applied Linguistics		3

Field Component: (3)

FLE 5908	Directed Study Foreign Language Education	1-3
or		

FLE 6925

Special Topics in Second Language Education

3

Graduation Requirements: Students must have a 3.0 GPA to graduate from the program. No more than two grades of "C" are permitted. Grades of "C-" or below will not be counted towards meeting program requirements.

Thesis Option: Students may opt to extend the MS program (3 to 6 additional thesis credit hours) by request.

Teaching English to Speakers of Other Languages (TESOL) Track**Degree Program Hours: (36)**

The Master of Science in Foreign Language: TESOL Track is designed to provide specialized training and content knowledge for teachers of all levels of ESOL, K through 12, adult education and community college education. Students who are state certified teachers may include the five courses required for the Add-on ESOL Endorsement as part of the Master's program.

Admission Requirements

To be admitted into the Master's degree program, a student must: a) hold a bachelor's degree from an accredited university or college; b) have a 'B' (3.0) average or higher in all junior and senior year course work for the bachelor's degree; and have a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Examination; or hold a master's degree from an accredited university or college; in any case the student must present a GRE score. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. Admission to the program is contingent upon departmental approval.

Degree Requirements

The Master of Science degree consists of 36 semester hours. A maximum of six semester hours may be transferred into the program from outside the University, subject to the approval of the major advisor. A maximum of six semester hours of graduate level courses taken as an undergraduate may be included in the program provided they have not been used to satisfy degree requirements for an undergraduate program.

Prerequisite

Introduction to Linguistics is the prerequisite for the Linguistics courses in the program. It may be satisfied with LIN 3010, LIN 3013, or LIN 5018.

Required Program: (36)**Professional Education: (9)**

EDF 5481	Foundations of Educational Research	3
EDF 6608	Social/Philosophical/ Historical Foundations of Education	3
EDF 6211	Psychological Foundations of Education	3

Program Courses: (18)

TSL 5142	Curriculum Development in ESOL	3
TSL 5371	Special Methods of TESOL	3
TSL 5938	Principles of ESOL Testing	3
TSL 6908	Field Component (structured field experience)	3

LIN 5211	Applied Phonetics	3
LIN 5501	English Syntax	3

Electives: (9)

Students will choose nine semester hours according to their needs, with the approval of their advisor. To meet state ESOL requirements, certified teachers (K-12) need to include in their electives the following courses:

TSL 5245	Developing ESOL Language and Literacy	3
EDG 5707	Cross Cultural Studies	3

Graduation Requirements

To receive the Master of Science degree in TESOL, the student must complete the required 36 semester hours of course work with a minimum 'B' or 3.0 grade point average and no more than two 'C' grades in required courses.

Master of Science in Physical Education

The Master of Science degree program in Physical Education is designed to provide advanced preparation for teachers of physical education. Applicants must have a 3.0 GPA for the last 60 hours of upper-division coursework, and include an autobiographical statement, their career goals and aspirations, and three letters of professional recommendation accompanying the application.

Degree Hours: (33)**Professional Education: (9)**

EDF 5481	Analysis and Application of Educational Research	3
EDF 6608	Sociological, Philosophical, and Historical Foundations of Education	3
EDF 6211	Educational Psychology: Foundations And Application	3
PET 5206	Youth Sport	3
PET 5216	Sports Psychology	3
PET 5052C	Motor Learning	3
PET 5256	Sociology of Sport	3
PET 5426	Curriculum in Physical Education	3
	or	
PET 5436	Physical Education Curriculum	3
PET 5948	Practicum in Physical Education	3
PET 6597	Survey of Research in Physical Education and Sports	3
Electives		3

Sports Management Track

The purpose of this track is to provide an option for persons seeking a master's degree in an allied (non-teaching) career in physical education. This degree program would primarily be of interest to persons who do not presently hold Florida teaching certification credentials. This degree does not provide teacher certification for the degree recipients. Examples of potential student clientele would include all foreign and American college graduates with bachelor's degrees in sports science, business, recreation, and other social sciences.

Admission Requirements

Students must hold a bachelor's degree from an accredited university and have a 3.0 GPA for the last 60 hours of upper-division coursework, and include an autobiographical statement, their career goals and aspirations, and three letters of professional recommendation accompanying the application. The published university

requirements for admission into the master's degree programs must be met. Students who do not have an undergraduate, major in physical education or a related field area are responsible for meeting the prerequisites for any course listed in the program's curriculum. A program advisor must be consulted regarding completion of degree requirements.

Degree Hours: (33)

STA 6166	Statistical Methods in Research	3
	or	
EDF 5481	Analysis and Application	3
PET 5216	Sports Psychology	3
PET 5256	Sociology of Sport	3
LEI 6577	Leisure Service Marketing	3
PET 6944	Supervised Field Experience	3-6
PET 6597	Survey of Research in Physical Education and Sports	3
LEI 5503	Law and Liability in Parks and Recreation and Sports	3
LEI 5510	Program Administration Parks Recreation and Sports	3

Advisor approved electives: (3-6)

Please consult with an advisor for appropriate courses.

Examples of approved electives are:

LEI 5440	Program Development in Parks, Recreation & Sport	3
PET 5206	Youth Sports	3
MAN 6501	Operations Management	3
MAN 7275	Organizational Behavior	3

Master of Science in Reading Education

The Master of Science in Reading Education develops competencies in diagnosis and remediation, teaching of reading K to 12, and administration and supervision of remedial, corrective, developmental, and content area reading programs. The graduate is competent to take leadership in improving reading instruction and preventing reading failure in schools or clinics.

Requirements for admission to the Master's program in Reading Education are a Bachelor's Degree in Education and possess or be eligible for State of Florida professional teaching certificate, pass State of Florida Certification exams, and a 3.0 GPA or higher for the last 60 hours of upper-division coursework.

This master's track is designed to meet the needs of students interested in reading assessment and instruction. This track leads to state certification.

Degree Program Hours: (36)**Required sequence of courses:**

RED 6314	Theory and Instruction in Literacy	3
LAE 6319	Integrated Language Arts	3
LAE 5415	Children's Literature	3
EDF 6211	Psychological Foundations of Education	3
RED 6336	Content Area Reading	3
EDF 5481	Foundations of Educational Research	3
RED 6546	Diagnosis of Reading Difficulties	3
RED 6515	Programs of Remediation in Reading	3
RED 6747	Research in Reading	3
RED 6xxx	Reading Assessment	3
RED 6805	Practicum in Reading	3
RED 6247	Organization and Supervision in Reading	3

Entry to Program:

Students are encouraged to meet all admission requirements prior to beginning the program; however, students may take a maximum of twelve (12) semester hours of course work applicable to the program prior to admission.

Graduation Requirements: Students must have a 3.0 GPA to graduate from the program. No more than two grades of "C" or "C+" are permitted. Grades of "C-" or below will not be counted towards meeting program requirements. All candidates must pass all sections of the Florida Teacher Certification Exam.

Thesis Option: Students may opt to extend the MS program (6 additional thesis credit hours) by request.

Educational Specialist in Curriculum and Instruction

Degree Program Hours: (36)

The Educational Specialist Degree (Ed.S.) in Curriculum and Instruction is offered for teachers and other professional educators who are seeking an advanced graduate degree. The program introduces professional educators to the theoretical basis of curriculum and instruction and provides opportunities for students to connect theory with practice. The following areas of specialization are offered: Art Education, Early Childhood Education, Elementary Education, English Education, Instructional Leadership, Learning Technologies, Mathematics Education, Modern Language/Bilingual Education, Reading Education, Science Education, and Social Studies Education. The program requires a minimum of 36 semester hours beyond the masters. Ed.S. coursework may not necessarily be applicable to the doctoral program.

Admission Requirements

Admission to the specialist program will be based on the following criteria:

- 1. A master's degree in Education or related areas from an accredited institution.
- 2. A satisfactory grade point average (at least 3.25) in all prior graduate work and a satisfactory grade point average (at least 3.0) in the last 60 semester-hours of undergraduate work

or

A combined score of 1000 (verbal and quantitative) on the Graduate Record Examination (GRE). In any case, the GRE score must be submitted.

- 3. Two (2) letters of recommendation to support the application.
- 4. A statement of career goals in professional education consistent with the objectives of an advanced graduate program.
- 5. A personal interview with a committee of program faculty.

6. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Curriculum and Instruction Core (12 Hours)

EDG 6250 Curriculum Development 3

EDG 6286 Curriculum Evaluation and Improvement in Urban School Systems 3
EDG 7222 Curriculum: Theory and Research 3
EDG 7362 Instruction: Theory and Research 3

Content Specialization (12-18 Hours)

Art Education
Early Childhood Education
Elementary Education
English Education
Instructional Leadership
Learning Technologies
Mathematics Education
Modern Language/Bilingual Education
Reading Education
Science Education
Social Studies Education

Research Core (6 hours)

EDF 6472 Research Methods in Education: Introduction to Data Analysis (Prerequisite:EDF 5481) 3
EDF 6475 Qualitative Foundations of Educational Research (Prerequisite:EDF 5481) 3

Action Research Option (3 Hours)

EDF 6487 Field Research for Educators 3
Student identifies, designs, conducts, and defends a classroom action research project.

or

Thesis Option (6 Hours)

EDG 6971 6
Student identifies, designs, conducts, and defends an original research in an appropriate area of curriculum and instruction. This option is strongly recommended for students who plan to enroll in a doctoral program in the future.

Transfer of Credit

Students may be allowed to apply up to six semester hours of course work taken at an accredited institution to the Specialist program requirements with the following stipulations:

- the student received a grade of 3.0 or better on a 4.0 scale
- the course was relevant, as judged by the Admissions Committee
- the course is listed on an official transcript received by the Graduate Admissions Office
- the course will be no older than 6 years at the time of graduation.

Doctor of Education in Curriculum and Instruction

Common Admission Requirements

The College of Education has common admission requirements for its Doctoral Programs regardless of the specialty sought. Applicants to the program must submit the following records and documents to the Office of Admissions:

- 1. A completed Application for Graduate Admission with appropriate fees.
- 2. An official copy of the Graduate Record Exam (GRE) scores.
- 3. Official transcripts of all higher education institutions attended.

Additionally, applicants must submit the following to the Office of Advanced Graduate (OAGS) Programs in the College of Education.

1. Three letters of reference attesting to the applicant's ability to succeed in doctoral study.
2. A current resume/vitae.
3. A statement that sets forth the applicant's career goals and relates these goals to the completion of the doctoral program.

No action will be taken on incomplete files. A file is considered incomplete if any of the above is missing.

The application and all supporting documentation are reviewed by program faculty. The criteria applied in reviewing the applicant's file are noted below. Exceptions to one or more of the stated criteria may be granted provided the applicant can provide compelling reasons and evidence.

1. A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper level undergraduate work.
2. A 3.25 GPA in all graduate work attempted.
3. A master's degree from an accredited institution.
4. A minimum combined verbal and quantitative score of 1000 on the GRE.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Upon completion of the review of the file the applicant will be interviewed by program and departmental faculty which comprise a Faculty Admissions Committee. Final admissions recommendations are made by the Faculty Admissions Committee and the Dean of the College. As admission to programs is competitive, meeting minimum admission requirements does not assure admission into the program. A candidate for admission to the program will be judged not only on the basis of quantitative criteria, but also in relation to prior experience, especially as it relates to future career goals. Additional information is available from the Coordinator of Doctoral Programs or Program Faculty.

Core Courses: (9)

Required Courses:

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3

Research: (9)

EDF 6472	Research Methods in Education: Introduction to Data Analysis	3
EDF 6486	Advanced Data Analysis in Quantitative Educational Research	3
EDF 6475	Qualitative Foundations of Educational Research	3
	or	
EDF 7403	Data Analysis in Multivariate Educational Research	3

Professional Education Core: (6)

EDF 7934	Seminar in Social Foundations of Education	3
EDP 7057	Educational Psychology Advanced Application	3

Specialization Area: (36)

The specialty areas include art education, early childhood education, elementary education, English education, international/intercultural development education, instructional leadership, learning technologies, mathematics education, modern language/bilingual education, reading education, science education, and social studies education. Students in all areas will take:
EDG 7923C Doctoral Seminar in Curriculum Studies 6
(3 hrs per semesters)

Cognate Area: (18)

The cognate area requires a minimum of 18 semester hours of course work in a single area of study related to the specialty. The courses should be chosen with regard to coherence and relevance to the anticipated substantive aspect of the dissertation and in consultation with the advisor. The cognate area may be taken in the College of Education, in the College of Arts and Sciences, or any other area offering courses relevant to the student's program.

Candidacy Examinations and Advancement to Candidacy

The student must successfully pass candidacy examinations covering course work and also submit copies of a dissertation proposal, which has been approved by the supervisory committee, to the Dean of the College and to the Dean of Graduate Studies.

Dissertation: (24)

The student is responsible for a minimum 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in an area of early childhood education, elementary education, secondary education, one of the K-12 areas, or in instructional leadership.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable recommendations of the supervisory and guidance committee, and an approved dissertation proposal). A minimum of six credit hours of dissertation are taken each semester the dissertation is being prepared. Continuous enrollment in dissertation study (including Summer semester) is required.

EDG 7980	Ed.D. Dissertation	24
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Curriculum and Instruction: Art Education (36)

Consult Program Advisor

Curriculum and Instruction: Early Childhood Education (36)

EEC 6261	Education Programs for Younger Children	3
LAE 5415	Children's Literature	3
LAE 6305	Instruction in Early Childhood Language Arts	3
RED 6305	Instruction in Early Childhood Reading	3
SCE 6306	Instruction in Early Childhood Science	3
MAE 6305	Instruction in Early Childhood Mathematics	3
EEC 6xxx	Arts and Technology in Early Childhood Education	3
SSE 6305	Instruction in Early Childhood Social Studies	3

EEC 6678	Research in Early Childhood Education	3
EEC 6932	Seminar in Early Childhood Education	3
EEC 6948	Supervised Experience in Early Childhood Education	3
EEC 7932	Doctoral Seminar in Early Childhood Education	3

Curriculum and Instruction: Elementary Education (36)

EDE 6205	Curriculum Design for Childhood Education	3
RED 6314	Theory and Instruction in Literacy	3
LAE 5415	Children's Literature	3
RED 5339	Subject Related Reading	3
MAE 6318	Instruction in Elementary Mathematics	3
SCE 6315	Instruction in Elementary Science	3
SSE 6355	Instruction in Elementary Social Studies	3
ARE 6315	Instruction in Elementary Art	3
EDE 5925	Special Topics in Elementary Education	3
EDE 6930	Seminar in Elementary Education	3
EDE 6488	Research in Elementary Education	3
EDE 7935	Doctoral Seminar in Elementary Education	3

Curriculum and Instruction: English Education (36)

Consult Program Advisor

Curriculum and Instruction: International and Intercultural Development Education

Those holding a Master's Degree in International and Intercultural Development Education or Comparative Education: (18 credit hours)

ADE 7571	Consulting in AE/HRD	3
EDF 5851	Social/Cultural Conflict In Educational Change	3
EDF 6651	IDE: Educational Technology, Planning, Assessment	3
EDF 6658	Selected Topics in IDE: Current Policy Issues	3
EDF 7656	IDE: Innovative Approaches in Educational Planning	3
EDF 7xxx	Dissertation Seminar in IIDE	3
Those with alternate Master's Degree: (21 credit hours).		
EDF 5812	National Ed. Systems: A Comparative Analysis	3
EDF 5852	Ed. Development Issues in Context: A Multidisciplinary Approach	3
EDF 6636	Intercultural Studies: Quantitative and Qualitative	3
EDF 6654	Macro and Micro Planning In Education	3
EDF 6850	IDE: Contemporary Planning Models and Techniques	3
EDF 7656	IDE: Innovative Approaches in Educational Planning	3
EDF 7xxx	Dissertation Seminar in IIDE	3

Cognate Area and Guided Electives

A coherent set of courses related to the doctoral tracks/IIDE (credit hours: between 30-36 cognate and guided electives)

If a student has completed a master's degree in the cognate field at another institution, he or she must take at least two courses in the same cognate field at FIU to

complete the requirement. The coherency of the cognate must be evident in the relevance of applicability to the student's major area of study.

Curriculum and Instruction: Instructional Leadership (36)

EDG 6250	General Curriculum Development	3
EDG 6286	Curriculum Evaluation	3
EDG 6920	Colloquium in Curriculum and Instruction	3
EDG 7391	Seminar in Instructional Leadership	3
EDG 7938	Doctoral Seminar In Instructional Leadership	3

Curriculum and Instruction: Learning Technologies (36)

Consult Program Advisor

Additional admission criteria for those who have completed Master's Degrees in other Fields

Those who do not hold a master's degree in educational technology, information technology, or learning technologies will be eligible for admission into the program after they complete 18 hours of coursework approved by the program advisor or advisory committee, in the areas of computer science, computer science education, educational technology, information technology, or learning technologies, and if they meet all the other requirements for admission into the program.

Completion of the following coursework, or equivalent coursework as determined by the program advisor or advisory committee, will qualify students with master's degrees in other fields for admission into the doctoral program, provided they also meet all other admission requirements:

EME 6405	Computers in the Classrooms
EME 6406	Microcomputers as Teaching Tools
EME 5602	Introduction to Multimedia
EME 6412	Courseware Evaluation and Authoring
EME 5945	Special Topics: Computers in Education
EME 6905	Directed Study: Computing in Education

Required Courses

(Twelve courses, for 36 semester hours from the following list of courses, with prior approval from the advisor. Courses completed without prior approval from the program advisor may be ineligible for inclusion in the doctoral program of study.) For specific course contact advisor.

With prior approval from the advisor, students can complete elective courses, 6000 level or higher courses related to technology in various disciplines, such as arts, language arts, mathematics, reading, science, social studies, etc.

A few possible electives are listed below (Others will be added to this list as soon as they are identified and or developed):

EME 6628	Administrative and Instructional Applications of Technology	3
EME 6xxx	Learning Technologies in Science Education	3
EME 6407C	Instructional Programming for Teachers	3
EME 6xxx	Learning Technologies in Social Studies Education	3
MAE 5655	Computers in Mathematics Education	3

Please consult the program advisor before enrolling in any elective, and to identify other appropriate electives.

Curriculum and Instruction: Mathematics Education (36)

Content Area

Goals:

- A. Depth of study through at least one 7000-level sequence of courses in mathematics education.
- B. Breadth of study through 6000-level sequences of courses in mathematics education.

*Please consult with the major Professor/Supervisory Committee for the details.

Curriculum and Instruction: Modern Language / Bilingual Education

Students are required to enroll in the following courses: (36)

Required Courses (18)

FLE 6925	Workshop in Second Language Education	3
EDF 5955	Field Study Abroad	3
	or	
FLE 5945	Modern Language/Bilingual School Experiences	6

See advisor for remaining courses.

Advisor approved electives (18) select from:

FLE 6336	Methods of Teaching Modern Languages (7-12)	3
LIN 5825	Pragmatics	3
EDA 6061	Introduction to Educational Leadership	3
EDA 7069	Educational Policy	3
FLE 5895	Bilingual Education Teaching Methodologies	3
EDF 6444	Consultation and Assessment with Culturally and Linguistically Diverse Populations	3
TSL 5142	Curriculum Development in ESL	3
TSL 5371	Special Methods of TESOL	3
EDA 6195	Communication in Educational Leadership	3
FLE 6938	Seminar in Second Language Testing	3

Curriculum and Instruction: Reading Education (36)

Consult with advisor in specialization area

LAE 5415	Children's Literature	3
LAE 6319	Integrated Language Arts	3
RED 6247	Organization and Supervision of Reading Programs	3
RED 6314	Theory and Instruction in Literacy	3
RED 5339	Subject Related Reading	3
RED 6546	Reading Diagnosis	3
RED 6515	Reading Remediation	3
RED 6805	Practicum in Reading	3
RED 6747	Research in Reading	3
RED 6931	Seminar in Reading Education	3
RED 7912	Doctoral Directed Study In Reading	3
RED 7938	Doctoral Seminar in Reading Education	3

Curriculum and Instruction: Science Education (36)

SCE 6366	Teaching Science in the Secondary School	3
SCE 6933	Seminar in Science Education	3
SCE 7165	Curriculum Development in Science Education	3
SCE 7761	Research in Science Education	3
SCE 7938	Doctoral Seminar in Science Education	3
	Other Courses in Doctoral major	21

Curriculum and Instruction: Social Studies Education (36)

The goals of this track are to prepare social studies professionals who:

1. conduct sound research on critical issues in social studies/global education and disseminate the results of that research in appropriate ways;
2. design and employ innovative instructional strategies based on research and best practices;
3. design innovative programs at all levels;
4. are aware of and contribute to standards-based school reform;
5. are predisposed to exhibit professional and ethical standards appropriate to their role as leaders in the field;
6. engage in the preparation of effective, ethical, and committed professionals in social studies education.

SSE 5905	Directed Study in Social Studies Education	3
SSE 6305	Early Childhood Social Studies	3
SSE 6355	Elementary Social Studies	3
SSE 6394	Social Studies in Other Nations	3
SSE 6633	Teaching Social Studies in the Secondary School	3
SSE 6795	Seminar: Research in Social Studies Education	3
SSE 6939	Seminar in Social Studies Education	3
SSE 7938	Doctoral Seminar in Social Studies Education	3
	History	3
	Political Science/International Relations /Geography	3
	Economics	3
	Anthropology/Sociology	3

Ph.D. Program in Curriculum and Instruction

The Department of Curriculum and Instruction offers the Ph.D. program in Curriculum and Instruction with concentration in Language, Literacy, and Culture; Science, Mathematics, and Learning Technologies; and Curriculum and Instruction. The program is offered to prospective students who will become scholars engaged in studies within broad historical, social, political, economic, linguistic, and intellectual contexts in the country and abroad. The program seeks to produce research scholars who are well-equipped for empirical and systematic examinations of educational theories, strategies, principles, and practices related to the content and organization of curriculum and to the process and outcome of instruction. The Ph.D. program in Curriculum and Instruction enables highly select students of demonstrated ability, industry, and motivation to serve as apprentices to mentors who are established scholars in their fields of study. Under the supervision of a faculty mentor, the students engage in a period of extensive study and

investigation that culminates in the demonstrations of expertise, creativity and originality by means of independent research.

Admission Requirements

Minimum admissions requirements for the Ph.D. Program in Curriculum and Instruction are as follows:

1. A Bachelor's Degree from an accredited institution in an appropriate area with a 3.0 GPA on a 4.0 scale on the last 60 hours of undergraduate work.
2. GRE score at or above 60th Percentile (1120 Verbal + Quantitative).
3. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
4. Three letters of recommendation addressing the applicant's academic abilities.
5. A letter of intent.
6. An admissions interview by the Curriculum & Instruction Admissions Committee.

The Curriculum & Instruction Admissions Committee will review, interview, and make admissions recommendation for each applicant. The GPA and GRE scores stated above are minimum requirements. Meeting the minimum requirements does not guarantee admission.

The Ph.D. Degree requires 93 semester hours beyond the bachelor's degree. Students with a master's degree directly related to the area of concentration must complete a minimum of 45 semester hours at FIU beyond their master's degree. At least 36 semester hours in the approved program of study, excluding the 24 hours of Independent Research and Dissertation, must be taken at FIU. Up to 9 semester hours of graduate credit may be transferred into the doctoral program. Each candidate must also register for a minimum of 24 semester hours of credit in independent research and dissertation directed by a qualified graduate faculty dissertation chair in the appropriate area of Language, Literacy and Culture, Science, Mathematics, and Learning Technologies, and Curriculum and Instruction.

The Ph.D. program of study includes seven required components:

1. Doctoral Core (15 semester hours)
2. Research Inquiry and Analysis (18 semester hours)
3. Cognate Study (9 semester hours)
4. Doctoral Internship (6 semester hours)
5. Major Area of Concentration (21 semester hours)
6. Residency
7. Independent Research and Dissertation (24 semester hours minimum)

1. The Doctoral Core includes a coherent sequence of courses and experiences required of all students. The Doctoral Core is divided into two areas: Curriculum & Instruction Core, Professional Education Core.

C & I Core (15 semester hours)

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
<i>Choose from one of the following:</i>		
EDG 7665	Seminar in Curriculum	3
EDG 7667	Advanced Topics in Curriculum	3
EDG 7692	Politics of Curriculum	3

EDG 7923	Doctoral Seminar in Curriculum	3
EDG 7xxx	Curriculum and Instruction in the Global Setting	3

Professional Education Core (6 semester hours)

EDF 7937	Advanced Topics in the Social Foundations of Education	3
EDP 7057	Educational Psychology: Advanced Applications	3

2. Research Inquiry and Analysis (18 semester hours)

At least 18 semester hours of advanced course work to include specialization in analytic methods related to dissertation and the comprehensive exam component on research.

EDF 5481	Foundations of Educational Research	3
EDF 6472	Introduction to Data Analysis in Educational Research	3
EDF 6481	Educational Research Methodology	3
EDF 6486	Advanced Data Analysis in Quantitative Educational Research	3
EDF 6475	Qualitative Foundations of Educational Research	3
EDF 7403	Data Analysis in Multivariate Educational Research	3
EDF 7475	Advanced Qualitative Methods in Educational Research	3

3. Cognate Study (9 Semester Hours)

The cognate area of study broadens the students' understanding of the conceptual base and issues underlying their declared major area of concentration. Courses in the cognate area are drawn from outside of the Department or from outside of the College and have a clear link to the anticipated dissertation efforts.

4. Doctoral Internship (6 semester hours)

Six hours of doctoral internships are required in the areas of research and teaching/curriculum development. Each of the internships is assigned (1) semester hour credit for a total of six semester hours. The internship assignments will be completed during the student's full-time, two-year period of uninterrupted study in a supervised apprenticeship with a faculty mentor.

EDG 6943	Supervised Field Experience	6
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5. Major Area of Specialization (21 semester hours)

(Select up to 21 semester hours in consultation with Major Professor/Committee)

Specialization I: Language, Literacy, and Culture

FLE 6938	Seminar in Second Language Testing	3
FLE 7938	Doctoral Seminar in Multicultural Education	3
LAE 6935	Seminar in English Education	3
LAE 6925	Composition Research: Issues and Trends	3
LAE 7938	Doctoral Seminar in English Education	3
RED 6747	Research in Reading	3
RED 6931	Seminar in Reading Education	3
RED 7912	Doctoral Directed Study in Reading	3
RED 7938	Doctoral Seminar in Reading Education	3
SSE 6394	Social Studies in Other Nations	3
SSE 6795	Seminar: Research in Social Studies Education	3
SSE 6939	Seminar in Social Studies Education	3
SSE 7938	Doctoral Seminar in Social Studies Education	3

EDE 6930	Seminar in Elementary Education	3
EDE 6488	Research in Elementary Education	3
EDE 7935	Doctoral Seminar in Elementary Education	3
EDF 6444	Consultation and Assessment with Culturally and Linguistically Diverse Populations	3
EEC 6678	Research in Early Childhood Education	3
EEC 6932	Seminar in Early Childhood Education	3
EEC 7932	Doctoral Seminar in Early Childhood Education	3

Specialization II: Mathematics, Science, and Learning Technologies

EDF 6651	IDE: Educational Technology, Planning and Assessment	3
EME 6507	Advanced Interactive Multimedia	3
EME 7936	Special Topics in Learning Technologies	3
EME 7938	Advanced Seminar in Learning Technologies	3
EME 7457	Teaching and Learning at a Distance	3
MAE 7165	Curriculum Development in Mathematics Education	3
Mathematics		18
SCE 6933	Seminar in Science Education	3
SCE 7165	Curriculum Development in Science Education	3
SCE 7761	Research in Science Education	3
SCE 7938	Doctoral Seminar in Science Education	3

Specialization III: Curriculum and Instruction

EDG 6250	General Curriculum Development	3
EDG 6286	Curriculum Evaluation	3
EDG 6920	Colloquium in Curriculum and Instruction	3
ESE 6215	Secondary School Curriculum	3

6. Residency

The residency requirement consists of two calendar years of full-time study. The residency provides a period of time for productive scholarship, research, teaching, and collegiality at a professional level. The supervised internship assignment is completed during the Residency period.

Candidacy Examination and Admission to Candidacy

To be admitted to candidacy, a student must meet the Residency Requirement and complete all coursework. The student must also successfully pass the candidacy examinations covering course work approved by the Program of Study Committee. Candidates then submit copies of a dissertation proposal, which has been approved by the research committee, to the Dean of the College of Education and to the Dean of the University Graduate School.

7. Independent Research and Dissertation (24 Semester Hours Minimum)

The dissertation will demonstrate the student's ability to conduct research of substantial rigor and contribute to advancing the knowledge base and scholarship in an area within the field of Curriculum & Instruction

EDG 7980	Doctoral Dissertation	24
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Add-on Endorsement in ESOL

Individuals who currently hold or are working toward teacher certification in Elementary, English, Foreign

Language or Special Education, may receive the Add-on Endorsement in ESOL by completing the following set of courses:

Required Courses

EDG 5707	Cultural and Cross-Cultural Studies	3
TSL 5142	Curriculum Development in ESOL	3
TSL 5245	Developing ESOL Language and Literacy	3
TSL 5371	Special Methods of TESOL	3
TSL 5938	Principles of ESOL Testing	3

Graduate Certificate Program in TESOL (Teaching English to Speakers of Other Languages)

The TESOL Certificate Program enables teachers to extend their competence in teaching foreign languages, particularly English. Completion of the TESOL Certificate Program qualifies the candidate to receive a Florida State Endorsement in Teaching English to non-Speakers, grades K-12. The program also assists prospective teachers to receive a professional credential that may assist them in successful employment in other countries. Entrance requirements are Bachelor's degree and a 3.0 GPA in the last two years of college work.

Required Courses

TSL 5371	Special Methods of TESOL	3
TSL 5245	Developing ESOL Language and Literacy	3
TSL 5142	Curriculum Development in ESOL	3
TSL 5938	Principles of ESOL Testing	3
EDG 5707	Cross-cultural Studies	3

Additionally, one other course may be chosen from the following list:

LIN 5501	English Syntax
LIN 5211	Applied Phonetics
LIN 6706	Psycholinguistics
LIN 5107	History of English Grammar
LIN 5431	General Morphology/Syntax
LIN 5574	Languages of the World
LIN 5601	Sociolinguistics
LIN 5625	Studies in Bilingualism
LIN 5715	Language Acquisition
LIN 5733	Teaching Accent Reduction
LIN 5825	Pragmatics
LIN 6323	General Phonology
LIN 6562	Discourse Analysis
LIN 6805	Semantics
RED 5925	Instructional Thinking Strategies
EEX 6051	Educational Needs of Students with Exceptionalities
EDP 5219	Secondary Classroom Management
RED 6336	Reading in the Content Area
LAE 5426	Multicultural Perspectives in Teaching Language and Literature for Young Adolescents

Educational Leadership and Policy Studies

Delia C. Garcia, Chairperson and Associate Professor, Urban Education

Dawn Addy, Director, Center for Labor Research

Catherine Akens, Assistant Professor (Courtesy Appointment), Higher Education

Benjamin Baez, Associate Professor, Higher Education

Jina Bang, Assistant Professor, Sport Management

Martha Barantovich, Instructor, Social Foundations of Education

Peter J. Cistone, Professor, Educational Leadership

Lisa Delpit, Professor and Director, Center for Urban Education and Innovation

Erskine S. Dottin, Professor, Social Foundations of Education

Helen Ellison, Assistant Professor (Courtesy Appointment), Higher Education

Paul D. Gallagher, Associate Professor, Educational Research, and Executive Vice President, Emeritus

Roger Geertz Gonzalez, Assistant Professor, Higher Education

Lynn Ilon, Associate Professor, Social Foundations of Education

Rosa L. Jones, Associate Professor (Courtesy Appointment), Higher Education

Larry Lunsford, Assistant Professor (Courtesy Appointment), Higher Education

Claudia Matus, Assistant Professor, Higher Education

Alexis McKenney, Associate Professor, Recreational Therapy

Dominic Mohamed, Professor, Vocational Education

Glenda Droogsma Musoba, Assistant Professor, Higher Education

Bruce Nissen, Program Director, Center for Labor Research

Tonette S. Rocco, Associate Professor, Adult Education and Human Resource Development

Louie Rodriguez, Assistant Professor, Urban Education and Social Foundations of Education

Janice R. Sandiford, Professor, Higher Education

E. George Simms, Assistant Professor (Courtesy Appointment), Higher Education

Thomas Reio, Associate Professor, Adult Education and Human Resource Development

Marc Weinstein, Associate Professor, Adult Education and Human Resource Development and Labor Research

Robert M. Wolff, Professor, Parks and Recreation and Sport Management

Joan Wynne, Associate Director, Center for Urban Education and Innovation

General Information

The Department of Educational Leadership is substantially directed toward masters and doctoral level preparation. The department offers programs and courses for students interested in working in a wide range of organizational, urban, multicultural, and international contexts of education and training. Academic preparation focuses on educational leadership, management, planning, design, evaluation, policy development and analysis, and instruction. In addition, the department provides core

undergraduate and graduate curricula in historical, comparative, cultural, social, and philosophical foundations of education. The department's faculty members, all with terminal degrees and substantial and diverse academic and practical experience, offer students a rich opportunity for study and research in many of today's most interesting and challenging areas of education.

The following pages describe the various graduate offerings in the department and the corresponding requirements. It should be noted that stated admission requirements are to be considered minimal. A student who meets these minimal requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

The Department of Educational Leadership and Policy Studies offers the following degree programs:

Master's Degrees

Adult Education
Educational Leadership
Higher Education Administration
Human Resource Development
International/Intercultural Education
Parks and Recreation Management
Urban Education

Educational Specialist Degree

Educational Leadership

Doctor of Education Degrees

Adult Education and Human Resource Development
Educational Administration and Supervision
Higher Education
International and Intercultural Development
Education Track

Graduate Certificate Programs

Conflict Resolution and Consensus Building
Educational Leadership

In addition, the department offers courses for persons who possess a baccalaureate or higher degree from an accredited institution of higher education and who seek State of Florida Certification in Adult Education Administration.

Master of Science in Adult Education

The Master of Science degree program is Adult Education (MS/AE) is designed for individuals who choose to serve as program coordinators, instructors, directors of non-profit agencies, community school administrators, and outreach professionals in workplace development, community and technical colleges. These professionals often analyze, design, implement, or manage adult education programs. The MS/AE program consists of a minimum of 36 credit hours, with 21 hours required in the program area, 3 hours of research methods, and a minimum of 12 hours of elective courses selected in consultation with a faculty advisor to form a minor area of study in relation to the student's professional and personal career goals.

Admission Requirements

1. A baccalaureate degree and an undergraduate GPA of 3.0 or higher on a 4.0 scale in the last 60 hours of upper-division coursework;
2. A statement of intent, 500 words or less, describing (a) the applicant's personal and professional goals and how

the degree program will enable the accomplishment of these goals and (b) the ways in which the applicant will be an asset to the program;

3. Complete and current résumé listing educational and professional preparation and employment background; and
4. Three letters of recommendation from individuals who can knowledgeably assess and describe the applicant's leadership potential and ability to perform graduate-level work. At least one reference must be from an academic source such as a former professor.

Note: The GRE is not a requirement for admission into the M.S. in Adult Education program.

Program of Study (AE)

The program in Adult Education consists of a minimum of 36 hours, with 24 hours required, and a minimum of 12 hours of electives.

Required Program: (36 hours minimum)

Required Core: (24 hours):

ADE 5386	Individual Learning and Adult Education	3
ADE 6180	Organizational/ Community Processes	3
ADE 6186	Comprehensive Program Evaluation in AE/HRD	3
ADE 6260	Management of AE/HRD Programs	3
ADE 6360	Adult Teaching Methods	3
ADE 6195	Perspectives on Adults with Disabilities	3
ADE 6945	Internship in AE/HRD	3
EDF 5481	Foundations of Educational Research	3

Advised Electives (12 hours minimum)

Master of Science in Educational Leadership

The Master of Science (M.S.) degree program in Educational Leadership comprises courses and experiences designed to develop entry level competencies in the practice of educational leadership. The program incorporates coursework that constitutes the "modified Florida program in educational leadership" at Florida International University and addresses the competencies assessed in the Florida Educational Leadership Examination. The program may be used to satisfy part of the requirements of the Florida Department of Education for state certification in Educational Leadership.

Admission Requirements

Admission to the program is based on the following criteria:

1. A baccalaureate degree and a grade point average of at least 3.25 (on 4.0 scale) in the last 60 semester hours of undergraduate coursework;
2. At least three years of successful full-time teaching experience prior to application for admission to the program;
3. Two letters of recommendation from individuals who can comment on the applicant's leadership potential and qualifications for successfully participating in the program.
4. A current resume (curriculum vitae), including education, professional preparation, and employment history; and
5. A brief written statement (approximately 250 words) articulating the applicant's professional career goals and aspirations.

Program of Study

The program of study (13 courses/39 semester hours) is as follows:

EDA 6061	Introduction to Educational Leadership	3
EDA 6192	Leadership in Education	3
EDA 6195	Communication in Educational Leadership	3
EDA 6232	School Law	3
EDA 6242	School Finance	3
EDA 6271	Administering Educational Technology	3
EDA 6930	Seminar in Educational Leadership	3
EDF 5481	Foundations of Educational Research	3
EDS 6115	School Personnel Administration	3
EDF 6608	Social, Philosophical and Historical Foundations of Education	3
EDF 6211	Psychological Foundations of Education	3
EDA 6503	Instructional Leadership	3
EDA 6943	Administrative Internship	3

Master of Science in Higher Education Administration

The Master of Science in Higher Education Administration prepares graduates to serve in a variety of roles at colleges and universities and related institutions. The academic program is run as a partnership with FIU's Student Affairs division, and integrates class-work with assistantships for a total learning experience. As a majority minority institution, FIU is the prototype for universities of the 21st century. Students in the program will have the opportunity to work and study in one of the most diverse higher education environments in the nation.

Admission Requirements

1. A baccalaureate degree and an undergraduate GPA of 3.0 in the last 60 credit hours of upper-division undergraduate study;
2. Work experience in higher education such as community college or student affairs areas is preferred but not required.

Program Requirements: (13 courses/39 semester hours)

Professional Studies (3 hrs)

EDF 5481	Foundations of Educational Research
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Required Courses (18 hrs)

EDA 7550	Administration of Higher Education
EDA 7236	Law and Higher Education
EDH 6047	College Student Life and Culture
EDH 6055	Access and Choice in US Higher Education
EDH 6045	College Student Development Theory
EDH 7065	HE: Philosophical/Historical Perspectives

Electives (18-24 hrs)

In conjunction with their advisor, students may select a set of electives to meet their educational and professional interests. Selection of electives can include a concentration in a particular area of higher education as well as provide a breadth of knowledge about the field. The following tracks are suggested sequences of courses.

• Leadership & Management

SDS 6646	Introduction to Student Affairs Administration
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- EDH 6051C Leadership in Higher Education
- EDA 6943 Administrative Internship
- **Student Affairs Administration**
 - SDS 6646 Introduction to Student Affairs Administration
- EDH 6045 College Student Development Theory
- EDA 6943 Administrative Internship
- **Community College Leadership**
 - EDH 7053 Higher Education: The Community College
 - EDH 7225 Higher Education Developmental Programs
 - EDA 6943 Administrative Internship
- **Public Policy**
 - EDH 7401C Higher Education and Public Policy
 - EDH 7402C State Policy and Higher Education
 - EDH 7505 Higher Education: Finance
 - EDA 6943 Administrative Internship

Capstone Experience

Students will be required to demonstrate the ability to synthesize their learning through a capstone educational activity. This experience will be completed with the direction of the advisor/faculty and may reflect a project emphasizing research experience (such as a thesis) or practical experience (such as an action research project).

Core Requirements

The 6 required courses in the core requirements reflect the range of basic knowledge common to all higher education professionals. Whatever the job function, it is imperative that university professionals know the law, be aware of current issues, be sensitive to the diversity of student culture and understand the core functions of education administration.

Elective Tracks

The elective tracks are designed to allow students to choose a path of study that reflects their immediate career goals, while maintaining program coherence. Advisors will work with students to decide on an elective track, and students must complete those prescribed courses. There are opportunities for additional electives at the student's discretion.

Practicum Experiences

A professional degree in university administration should allow for some guided practical experience. The practicum sections allow students the opportunity to earn credit while gaining valuable hands-on experience in a variety of administrative areas. Practicum sections will include an academic component designed by the Higher Education faculty and the section supervisor.

- No more than 6 hours of practicum will count towards the overall degree requirements.
- No more than 3 hours of practicum will count towards fulfilling the elective track requirement. Any additional hours will fulfill the advisor approved elective requirement.

The graduation requirements include successful completion of the above required program of study, including the capstone experience.

Master of Science in Human Resource Development

The Master of Science degree program in Human Resource Development (MS/HRD) is designed for individuals who choose to serve as training or organizational development director/manager, instructional designer, instructor, trainer, human performance consultant, and/or researcher in human resource development. These professionals often analyze, design, implement, or manage human resource development (HRD) programs. The MS/HRD program consists of a minimum of 36 credit hours, with 21 hours required in the program area, 3 hours of research methods, and a minimum of 12 hours of elective courses selected in consultation with a faculty advisor to form a minor area of study in relation to the students' professional and personal career goals.

Admission Requirements

1. A baccalaureate degree and an undergraduate GPA of 3.0 or higher on a 4.0 scale in the last 60 hours of upper-division coursework;
2. A statement of intent, 500 words or less, describing (a) the applicant's personal and professional goals and how the degree program will enable the accomplishment of these goals and (b) the ways in which the applicant will be an asset to the program;
3. Complete and current résumé listing educational and professional preparation and employment background; and
4. Three letters of recommendation from individuals who can knowledgeably assess and describe the applicant's leadership potential and ability to perform graduate-level work. At least one reference must be from an academic source such as a former professor.

Note: The GRE is not a requirement for admission into the M.S. in Human Resource Development program.

Program of Study (HRD)

The program in Human Resource Development consists of a minimum of 36 hours, with 24 hours required and a minimum of 12 hours of electives.

Required Program: (36 hours minimum)

Required Core: (24 hours)

ADE 5386	Individual Learning and Adult Education	3
ADE 5387	Organizational Learning and Human Resource Development	3
ADE 6180	Organizational and Community Processes in AE/HRD	3
ADE 5383	Instructional Analysis and Design	3
ADE 6286	Instructional Development and Implementation	3
ADE 6260	Management of AE/HRD Programs	3
ADE 6945	Internship in AE/HRD	3
EDF 5481	Foundations of Education Research	3

Advised Electives (12 hours minimum)

Master of Science in International/Intercultural Education

The Master of Science degree in International/Intercultural Education (IIE) is designed to provide graduate training to students interested in understanding the processes of globalization, the global environment, and the responsibilities of citizenship in an increasingly

interdependent world. The program places emphasis on training in cross-cultural communication and exchange, international development, and educational practice in a global context.

Admission Requirements

To be admitted into the master's degree program in International/Intercultural Education (IIE), a student must have (a) a bachelor's degree from an accredited U.S. institution or its equivalent for international students, (b) a 3.0 GPA or higher for the last 60 hours of upper-division coursework, (c) three letters of recommendation, and (d) an autobiographical statement.

Degree Requirements

The Master's program requires the completion of a minimum of 33 semester hours of course work at the graduate level with a 3.0 GPA. A maximum of six semester hours of graduate work may be transferred to the program from other universities. The 33 semester hours are to be completed in accordance with the program curriculum.

Required Program (33 minimum)

The IIE program blends together theoretical foundations and methodological perspectives. Graduate students are exposed to the role of the social, political, economic, scientific and cultural sectors in education worldwide. Research and analytical skills are provided to insure student's ability to define, gather, analyze and evaluate data for project management and decision-making. Applied courses are designed to provide the professional competencies for academic research, teaching and administration, and employment in foundations, non-governmental organizations, governmental institutions, businesses and corporations.

Foundations of Education (9)

EDF 5481 Foundations of Educational Research 3

One Teaching and Learning Course, such as:

EDF 6211 Psychological Foundations of Education 3

ADE 5385 Adult Teaching and Learning 3

TSL 5245 Developing Language and Literacy 3

SSE 5381 Developing a Global Perspective 3

EDP 7504 Educational Psychology in Cross-Cultural Context 3

EDF 6636 Intercultural Studies: A Qualitative and Quantitative Analysis 3

One Social Foundations Course, such as:

EDF 6608 Social, Philosophical and Historical Foundations of Education 3

EDF 6766 Education, the Environment, and Sustainable Futures 3

Core (6)

EDF 6852 Educational Development Issues in Context: A Multidisciplinary Perspective 3

EDF 6658 Selected Topics: International Development Education, Current Policy Issues and Problems 3

GeoCultural Area (6)

The purpose of this requirement is to give the student a foundation in the culture, politics, and history of an area or region. The student will select two courses that relate to his/her area of interest. Courses must be approved by the advisor. Examples include:

AFH 5935	Topics in African History	3
INR 5086	Islam in International Relations	3
LAH 5935	Topics in Latin American History	3
LAS 6003	Survey of Latin America	3
CPO 5325	Politics of the Caribbean	3
CPO 6105	Politics of the European Union	3
CPO 6206	Seminar in African Politics	3
CPO 6350	Seminar in Brazilian Politics	3
CPO 6407	Seminar in Politics of the Middle East	3

Policy (3)

This course is selected in consultation with the advisor from the College of Education. Possible courses include:

EDH 7401	Higher Education and Public Policy	3
EDF 7402	Higher Education and State Policy	3
EDA 7288	Politics of Education	3
EDG 7692	Politics of Curriculum	3

Area of Interest (9)

Students in IIE go into a number of areas for work and study. Primary among these are Cross-Cultural Communication and Contact, International and Comparative Education, and Global Change and Sustainable Futures. The areas of interest courses are designed to allow students to develop their area of concentration. When combined with other IIE courses, students should have enough hours to satisfy community college teaching requirements. To complete this requirement, students must choose one area of interest and take three courses selected in consultation with and approved by the advisor. Examples include:

1. Cross-Cultural Communication and Contact

EDF 5851 Socio/Cultural Conflict in Educational Change 3

EDF 6880 Intercultural Ed: National and International Perspectives 3

EDF 6365 Cultural Identities and Conflict 3

EDG 5707 Cross-Cultural Studies in Education 3

2. International and Comparative Education

EDF 5812 National Educational Systems: A Comparative Analysis 3

EDF 6850 International Development Education: Contemporary Planning Models and Techniques 3

EDF 5820 Latin American Education 3

EDF 5821 African Educational Systems: A Comparative Approach 3

SSE 5381 Developing a Global Perspective 3

SSE 6939 Seminar in Social Studies Education 3

SSE 6934 Social Studies in Other Nations 3

INR 5036 Politics of Globalization 3

GEO 5557 Globalization 3

INR 6017 Comparative Approaches to Area Studies and Global Issues 3

INR 6019 Seminar in Comparative Area Studies 3

INR 5087 Ethnicity and the Politics of Development 3

3. Global Change and Sustainable Futures

ECO 5709 World Economy 3

ECS 5027 Economic Development of Emerging Nations 3

EVR 5320 Environmental Resource Management 3

INR 5036 Politics of Globalization 3

INR 5607 International Relations and Development 3

INR 5087	Ethnicity and the Politics of Development	3
SYD 6236	International Migration and Refugees	3
SYP 5447	Sociology of International Development	3
MAN 6746	Global Environmental Management	3
EDF 7937	Advanced Topics in Social Foundations of Education	3
EDF 6906	Directed Study in International Development Education	3

LEI 6725	Administrative Aspects of Therapeutic Recreation	3
LEI 6726	Problems, Concepts Issues and Trends in Therapeutic Recreation	3
Thesis Option:		
LEI 6970	Thesis: Therapeutic Recreation	6
Advised Electives		3
Total Hours Thesis Option:		30

Non-Thesis Option:		
LEI 5907	Individual Study in Parks and Recreation Management	3
Advised Electives		12
Total Hours Non-Thesis Option:		36

Students not currently certified as Therapeutic Recreation Specialists must also register for the following course as part of their overall program:

Prerequisites:

Individuals not currently certified at the professional level (CTRS) by the National Council for Therapeutic Recreation Certification will be required to take the following content courses for completion of the Therapeutic Recreation graduate curriculum:

Introduction to Therapeutic Recreation
Disabling Conditions and T.R. Services
Recreational Therapy Interventions
Abnormal Psychology
Anatomy
Physiology
Human Growth and Development

LEI 6922	Supervised Field Experiences in Parks and Recreation	6-9
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Master of Science in Parks and Recreation Management

The graduate program in Parks and Recreation Management is planned to provide advanced preparation for administrative and supervisory level positions within a leisure services delivery system and recreational therapy services. The program includes electives which give flexibility regarding an individual's specific career goals as a future practitioner in parks and recreation management or recreational therapy services. The Recreational Therapy track is designed to prepare direct service and administrative personnel engaged in recreational therapy service delivery.

Admission Requirements

To enter the program in Parks and Recreation Administration, a student must have a 3.0 GPA for the last 60 hours of upper-division courses, career goals and aspirations, and three letters of professional recommendation, possess a bachelor's degree, and have appropriate undergraduate preparation in recreation or recreational therapy.

Degree Program: (30-36)

Required Core: (12)

LEI 5510	Program Administration in Parks, Recreation and Sport	3
LEI 5595	Seminar in Parks, Recreation, and Sports Management	3
LEI 5605	Philosophical and Social Bases of Parks and Recreation	3
STA 6166	Statistical Methods in Research I	3
or		
EDF 5481	Analysis & Application	3

Select from one of the following two tracks: (15-21)

Leisure Services Management Track

LEI 5907	Directed Study in Parks and Recreation Management	3
Advised Electives		15

A student who did not complete a Parks, Recreation, Leisure or Sports oriented internship/field experience during his or her undergraduate degree curriculum will be required to take:

LEI 6922	Supervised Field Experiences in Parks and Recreation	6-9
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Recreational Therapy Track

Therapeutic Recreation Core (3-12)

LEI 5716	Program Planning in Therapeutic Recreation	3
LEI 5719	Client Assessment, Evaluation, and Documentation in Recreational Therapy	3

Master of Science in Urban Education

The Master of Science in Urban Education is a degree program designed to provide specialized knowledge and practice in areas related to urban/multicultural contexts. It aims at enhancing the effectiveness of teachers serving in diverse urban settings. The program represents a collaboration among the Miami-Dade County Public schools, the United Teachers of Dade (UTD) and the College of Education. It places special emphasis on developing the skills of teachers as researchers by engaging in action research projects at individual school sites. The Master's program requires the completion of 36 semester hours of course work at the graduate level with a minimum 3.0 GPA. A maximum of six graduate hours may be transferred from another institution, upon approval from an advisor. The program offers five specialty tracks which students can select for an area of concentration.

Admission Requirements

Admission to the Master's degree in Urban Education is based on the following criteria:

1. Have a 3.0 GPA for the last 60 hours of upper-division coursework;
2. Complete an interview with program faculty;
3. Submit an autobiographical statement;
4. Submit a letter of intent describing why this particular degree is of interest, and;
5. Submit three letters of recommendation from individuals (academic and professional sources) who can assess and describe the applicant's qualifications and ability to perform graduate level work.

Note: The GRE is not a requirement for admission into the M.S. in Urban Education program.

Program of Studies

Professional Studies Core (9)

EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
EDF 6636	Intercultural Studies	3
	or	
EDF 6689	Urban Education: Defining the Field	3

Research and Development Project Core (9)

EDF 5481	Foundations of Educational Research	3
EDF 6925	Special Topics in Urban Education: Qualitative Research in Urban Education	3
EDF 6475	Qualitative Foundations of Educational Research	3
EDF 6941	Practicum: Urban Elementary/Secondary Schools (Action Research Project)	3

Specialty Track #1: Multicultural/TESOL (18)

This specialty track develops the skills of educators to work with linguistically and culturally diverse populations while providing an opportunity to obtain State ESOL endorsement.

TSL 5142	Curriculum Development in TESOL	3
TSL 5245	Developing ESOL Language and Literacy	3
TSL 5371	Special Methods of TESOL	3
TSL 5938	Principles of ESOL Testing	3
EDF 5942	Multicultural Seminar and Practicum in Urban Education	3
EDG 5707	Cultural/Cross-Cultural Studies in Education	3

Specialty Track #2: Instruction in Urban Settings (18)

This track emphasizes the development of effective teaching skills and dispositions required for the effective instruction of culturally diverse students in urban schools.

EDG 5325	Analysis of Teaching	3
EDF 7215	Application of Learning Theory to Instruction	3
EME 5602	Multimedia in the Classroom and	3

Interdisciplinary Electives: (select three)

EDG 5707	Cultural/Cross-cultural Studies in Education	3
EDF 6444	Consultation and Assessment with Culturally and Linguistically Diverse Populations	3
TSL 5142	Curriculum Development in TESOL	3
TSL 5245	Developing ESOL Language and Literacy	3
TSL 5371	Special Methods of TESOL	3
TSL 5938	Principles of ESOL Testing	3

Specialty Track #3: Learning Technologies (18)

This track is intended for educators who wish to learn the necessary knowledge, skills and dispositions to effectively use computers and related technologies to facilitate teaching and learning in diverse settings.

EME 6405	Computers in the Classroom	3
EME 6408	Microcomputers as Teaching Tools	3

EME 6412	Educational Courseware Evaluation and Development	3
EME 5602	Multimedia in the Classroom	3
EME 5945	Special Topics in Computer Education	1-3
EME 6905	Directed Study: Computer Education	3

Note: Six hours of electives may be completed in lieu of the courses EME 5945 and EME 6905 with prior approval from the academic advisor.

Specialty Track #4: Urban Education (15)

EDE 5267	Education of the Child in Urban Society	3
EDF 5851	Socio/Cultural Conflict in Education	3
EDF 6689	Urban Education: Defining the Field	3

Guided Electives in Urban Education (6)

Six hours of electives may be taken with approval of academic advisor.

Specialty Track #5: Multicultural/Bilingual Education (15)

FLE 4151	Bilingual School Curriculum and Organization	3
FLE 4871	Teaching Spanish to Speakers of Spanish	3
EDF 5942	Multicultural Seminar and Practicum in Urban Education	3

Guided Electives in Multicultural/Bilingual Education (6)

Six hours of electives may be taken with approval of academic advisor.

Educational Specialist in Educational Leadership

The Educational Specialist (Ed.S.) degree program in Educational Leadership is intended to provide professional educators with an opportunity to develop competencies in areas of special needs and interests in the field of Educational Administration/Leadership. Consequently, there are few required courses and each student's program is individually planned in consultation with a faculty advisor. The program may be used to satisfy part of the requirements of the Florida Department of Education for state certification in Educational Leadership.

Admission Requirements

Admission to the program is based on the following criteria:

1. A master's degree (or equivalent) and a grade point average of at least 3.25 (on 4.0 scale);
2. At least three years of successful full-time teaching experience prior to application for admission to the program;
3. Two letters of recommendation from individuals who can comment on the applicant's leadership potential and qualifications for successfully participating in the program;
4. A current resume (curriculum vitae), including education, professional preparation, and employment history; and
5. A brief written statement (approximately 250 words) articulating the applicant's professional career goals and aspirations.

Program of Study

The program of study comprises a minimum of 39 semester hours and is planned in consultation with and

approved by a faculty advisor. The structure of the program is as follows:

EDA 6061	Introduction to Educational Leadership	3
EDF 6608	Social, Philosophical and Historical Foundations of Education	3
EDF 6211	Psychological Foundation of Education	3
Guided electives in Educational Administration/Leadership		24
Guided electives in Research/Statistics/Measurement and Evaluation		6

Doctor of Education Programs

Common Minimum Admission Requirements

The College of Education has common admission requirements for its doctoral programs regardless of the specialty sought. Applicants to the program must submit the following records and documents to the Office of Graduate Admissions:

1. A completed online application for Graduate Admission with appropriate fees.
2. An official copy of the Graduate Record Exam (GRE) scores.
3. Official transcripts of all higher education institutions attended.
4. Three letters of reference attesting to the applicant's ability to succeed in doctoral study.
5. A current resume/vitae.
6. A statement that sets forth the applicant's career goals and relates these goals to the completion of the doctoral program.

No action will be taken on incomplete files. A file is considered incomplete if any of the above is missing.

The application and all supporting documentation are reviewed by program faculty. The criteria applied in reviewing the applicant's file are noted below. Exceptions to one or more of the stated criteria may be granted provided the applicant can provide compelling reasons and evidence.

1. A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper level undergraduate work.
2. A 3.25 GPA in all graduate work attempted.
3. A master's degree from an accredited institution. A bachelor's degree from an accredited institution may be accepted for Admission.
4. A minimum combined verbal and quantitative score of 1000 on the GRE.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Upon completion of the review of the file the applicant will be interviewed by program and departmental faculty which comprise a Faculty Admissions Committee. Final decisions are made by the Faculty Admissions Committee and the Dean of the College. As admission to programs is competitive, meeting minimum admission requirements does not assure admission into the program. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals. Additional information is available from the individual program faculty.

Professional Education Core

EDF 7937	Advanced Topics in the Social Foundations of Education	3
EDP 7057	Educational Psychology: Advanced Applications	3

All doctoral students must enroll in EDF 7937 within their first year of admission.

Research and Statistics Core (9 hours minimum)

A research requirement of nine semester hours, taken in the order listed, is common to all College of Education doctoral programs.

EDF 6472	Research Methods in Education: Introduction to Data Analysis	3
EDF 6486	Advanced Data Analysis in Quantitative Educational Research ¹	3

¹Prerequisite: EDF 5481 and EDF 6472.

And one of the following:

EDF 7403	Quantitative Foundations of Educational Research	3
EDF 6475	Qualitative Foundations of Educational Research	3

Candidacy Examinations and Advancement to Candidacy

The student must complete all coursework, successfully pass both written and oral candidacy examinations covering course work and also submit copies of a dissertation proposal, which has been approved by the supervisory committee, to the Dean of the College and to the Dean of the University Graduate School.

Program Core (24-36 hours minimum)

Advised Electives

Dissertation (24 hours minimum)

The student is responsible for a minimum of 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge. The doctoral dissertation is the final component of the series of academic experiences that culminate in the awarding of the Ed.D. degree. A successful dissertation is a demonstration of the candidate's ability to use the tools and methods of basic and/or applied research in the field, to organize the findings, and to report them in a literate, logical, and compelling fashion.

The student is expected to complete the dissertation within five (5) years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, and favorable recommendations of the supervisory and guidance committee). A minimum of six credit hours of dissertation is to be undertaken each semester while the dissertation is being prepared. Continuous enrollment in dissertation study is required (including summer semesters).

Adult Education and Human Resource Development (AE/HRD)

The doctoral program in Adult Education and Human Resource Development (AE/HRD) prepares advanced professionals to facilitate individual, organizational, and career development and advancement of adults in the nation and the world.

Graduates are equipped to design and facilitate programs for adult clients, employees, volunteers, students, and associates of profit and not-profit

organizations. These professionals may be engaged in program development and evaluation, planning, policy development and analysis, leadership, instruction and training, counseling and advisement, consultation, and marketing and recruitment activities designed to further the growth and development of adult learners. They may also be engaged in improving organizational functioning through educationally-related intervention strategies or working with other performance improvement consultants.

The Doctor of Education (Ed.D.) degree program in Adult Education and Human Resource Development is designed (a) to serve the advanced professional development needs of individuals concerned with the improvement of education and development, planning, research, training, evaluation and other types of developmental programs, distance learning and innovative practices which focus on adult learners and (b) to provide technical assistance, consultation, and other professional services to organizations that conduct, sponsor and/or promote adult education and human resource development programs in the context of intercultural and international areas and/or projects.

Participants in the AE/HRD doctoral program come from diverse backgrounds: business and industry; higher education; public and proprietary schools; health and social services agencies; law enforcement and corrections; the military, government, and non-governmental agencies; religious organizations; libraries and museums; and civic and professional associations.

The Doctor of Education degree is conferred on the basis of high scholarship and skill in the creation and application of knowledge from theory and research findings to practical problems in adult education and/or human resource development. Applications for admission to the doctoral program are invited from individuals who are highly motivated and intellectually capable of meeting the challenges of a rigorous doctoral degree program.

Additional Admission Requirements

In addition to the University's and the College of Education's common minimum admission requirements, applicants must possess the following qualifications:

1. Evidence of commitment to a career in the broad field of adult education, human resource development or International and Intercultural Development Education.
2. Successful professional experience in one or more of the above fields.
3. Potential for leadership or research in the above fields.

Candidates for admission to the programs will be judged not only on the basis of quantitative criteria (e.g., GRE scores and GPA, as listed elsewhere in this catalog) but also in terms of prior experience and future career goals.

Adult Education and Human Resource Development Program of Study

Doctoral programs of study vary according to the individual needs of the participants, their academic backgrounds, and their current or anticipated professional goals. A typical program will require a minimum of 96 semester hours beyond the baccalaureate degree and will involve the categories of courses noted below. The list should be considered as a sample program rather than an absolute delineation of exact requirements. Actual programs of study are planned by the participants, their major

professor, and their committee members program of studies supervisory committee.

Adult Education and Human Resource Development Program Core (18 - 24 hours)

The adult education and HRD core includes courses in areas such as comprehensive adult education and HRD planning, program development, instructional design, individual and organizational learning, trends and issues, strategies, and research in the disciplines. For students with a master's in adult education or human resource development, the minimum is 18 semester hours. For students whose master's is not in AE or HRD, the minimum is 24 hours.

Research and Statistics (9 hours minimum)

Although some courses are required for all doctoral participants, others are selected with the guidance of the participant's major professor and committee.

Cognate (3 - 18 semester hours minimum)

Electives in the cognate area vary according to the participants' background and professional goals and are selected with the guidance of the participant's committee. For students with a master's in AE or HRD, the minimum is 9 semester hours. For students whose master's is not in AE or HRD, the minimum is 3 hours.

Prospectus and Dissertation (24 semester hours minimum)

Participants are responsible for a minimum of 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in an area of adult education or human resource development. Participants are expected to complete the dissertation within nine (9) years from their date of admission to the AE/HRD doctoral program. A minimum of three credit hours of dissertation are to be undertaken each term the dissertation is being prepared. Continuous enrollment in dissertation study is required, including summer terms.

Educational Administration and Supervision

The doctoral (Ed.D.) program in Educational Administration and Supervision is designed for students who wish to pursue leadership roles in educational institutions. The program of studies prepares students for careers as school superintendents, principals, directors and supervisors; administrators in state, federal, and international agencies; professors of Educational Administration; and administrators in institutions of higher education.

The curriculum is designed to enable students to become familiar with and utilize effectively both theoretical and technical knowledge. The program of study is multidisciplinary and integrates broad intellectual perspectives into the study and practice of Educational Administration.

Additional Admission Requirements

In addition to the common admission requirements for doctoral programs in the College of Education, an applicant must:

1. Provide evidence of at least three years of successful and appropriate professional experience.
2. Engage in an interview with a committee of program faculty.

3. Receive a positive endorsement of the program faculty.

Program of Study

The program requires the completion of a minimum of 99 semester hours of academic work beyond the baccalaureate degree. Program requirements include the following:

Educational Administration and Supervision	33
Minor/Cognate Area	15
Professional Education Core	6
Research and Statistics Core	12

Upon completion of the coursework, each student must pass a doctoral candidacy examination and be advanced to candidacy.

Doctoral Dissertation (EDA 7980) 24

A candidate for the doctorate in Educational Administration and Supervision is required to prepare and present for faculty approval a doctoral dissertation that demonstrates a capacity for independent thought and for the application of the tools and methods of research to educational issues and problems.

Higher Education

The doctoral program in Higher Education is practitioner oriented and designed to provide the opportunity for specially selected individuals to enhance instructional, administration, and research skills for leadership roles related to the continuing development and operation of higher education institutions. The program is offered in a format to make it attractive and available to place bound professionals in Southeast Florida and beyond. Graduates are prepared for academic and student affairs administrative positions, as faculty, or as policy analysts in federal, state, or institutional roles. The program is designed to stimulate research related to higher education, particularly in the development of innovative administrative and instructional approaches appropriate for urban settings. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals.

Post-baccalaureate course work minimum requirements for the degree, while subject to individual variations, consist of the following:

Higher Education Core: (21)		
EDH 7065	Higher Education: Philosophical and Historical Perspectives	3
EDH 7053	Higher Education: Community College	3
EDG 7222	Curriculum Theory and Research	3

Additional courses in Education that will enhance the student's instructional and/or administrative abilities and skills.

In addition to one of the above specialties the following are required:

Professional Education Core (6)

Cognate Area: (18)

The cognate area may be taken in one or more subject areas and may include graduate or undergraduate (post-baccalaureate) courses. The design of the cognate for Higher Education Instruction should assist the student in developing into a well-rounded teacher, one who is able to adapt to changing conditions of instruction. The design of

the cognate for Higher Education Administration should assist the student in developing essential administrative leadership skills.

Research and Statistics Core: (9)

The research and statistics requirement is designed to assist the student in expanding the capacity to use research related to instruction.

Dissertation: (24)

The dissertation should be on a topic of importance to higher education and should reflect the student's professional interests and goals.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable recommendations of the supervisory and guidance committee, and an approved dissertation proposal). All program requirements must be completed no later than nine years from the date of admission. A minimum of three credit hours of dissertation are to be undertaken each semester the dissertation is being prepared. Continuous enrollment in dissertation is required (including summer semester).

International and Intercultural Development Education Track:

Students interested in this track should contact the Advisor for curriculum information.

Graduate Certificate in Educational Leadership

The Graduate Certificate Program in Educational Leadership is designed for students who have a master's degree in a subject or field of Education other than Educational Administration/Leadership. The coursework constitutes the "modified Florida program in educational leadership" at Florida International University and addresses the competencies assessed in the Florida Educational Leadership Examination. The program may be used to satisfy part of the requirements of the Florida Department of Education for certification in Educational Leadership.

Admission Requirements

Admission to the program requires:

1. A completed online graduate certificate application.
2. A completed application form submitted to the Program Leader in Educational Leadership;
3. A master's degree;
4. A regular Florida teaching certificate;
5. A grade point average of at least 3.0 (on a 4.0 scale) in master's degree work;
6. A minimum combined score of 800 on the verbal and quantitative portions of the Graduate Record Examination (General Test);
7. At least three years of successful teaching experience.

Program of Study

The program of study comprises a minimum of 30 semester hours.

EDA 6192	Leadership in Education	3
EDA 6195	Communication in Educational Leadership	3
EDA 6232	School Law	3
EDA 6242	School Finance	3
EDA 6271C	Administering Educational Technology	3

EDA 6503	Instructional Leadership	3
EDS 6115	School Personnel Administration	3
EDA 6943	Administrative Internship	3
EDA 6061	Introduction to Educational Leadership	3
Advisor-approved elective in Curriculum and Instruction		3

Conflict Resolution and Consensus Building Graduate Certificate Program

Dawn Addy, Certificate Director, Labor Studies

Coordinating Committee

Fred Becker, Public Administration
John Clark, International Relations
Suzanna Rose, Psychology
Guillermo Grenier, Sociology/Anthropology
Joel Heinen, Environmental Studies
Thomas Humphries, Labor Studies
Nathan Katz, Religious Studies
Paul Kowert, International Relations
K. Galen Kroeck, Management
Virginia McCoy, Public Health
Diann Newman, Hospitality Management
Bruce Nissen, Labor Studies
Elizabeth Prugl, International Relations
Nicol Rae, Political Science
Keith Revell, Public Administration
Joan Remington, Hospitality Management
Dian Weddle, Dietetics and Nutrition

The Conflict Resolution and Consensus Building Certificate Program offers students at the post-baccalaureate level the opportunity to obtain an interdisciplinary concentration in the study of conflict resolution and to obtain an intellectual background in the theories and methodologies of conflict resolution and consensus building.

In modern society, the ability of various sectors to understand one another's perspectives, to learn methods to reduce potential conflicts, and to develop mechanisms to work toward building consensus is extremely critical. The issues that may be explored in this area of study are multi-disciplinary and lend themselves to a broad-ranging interdisciplinary certificate which will allow students both to gain an understanding of the major concepts and issues in the field and also concentrate in a more specific area of study such as the workplace, the community, the educational institution, or the international arena.

The certificate enhances interdisciplinary connections among Labor Studies, Management, International Relations, Latin American Studies, Sociology, Anthropology, Political Science, Education, Hospitality, Public Administration, Public Health, Dietetics and Nutrition, Environmental Studies, Religious Studies, and Psychology and complements studies in other areas, including the newly approved Law School.

Certificate Requirements

The certificate program requires 18 hours (6 courses) of study at the graduate level from the following certificate program course listing, or others approved by the certificate program advisor. Three tracks of study are offered: Track I: Workplace Conflict Resolution; Track II: Community Conflict Resolution; and Track III: Global Issues and Conflict Resolution.

For each track there are two required core courses and four additional electives. The courses should be understood to be a partial list; students should consult with

the advisor of the certificate program about current course offerings. Students are required to take courses from a minimum of two departments.

Core Courses for all Tracks

(6 hours)

LBS 5485	Fundamentals of Conflict Resolution	3
LBS 5931	Topics in the Philosophy and Methods of Conflict Research	3

or

A research or methods course from related disciplines to be chosen from various disciplines in consultation with advisor.

Track I: Workplace Conflict Resolution (12 hours)

Labor Studies

LBS 5155	Workplace Diversity
LBS 5215	Women in the US Workplace
LBS 5406	Collective Bargaining and Labor Relations
LBS 5464	Labor Arbitration
LBS 5486	Dynamics of Conflict Management
LBS 5465	Introduction to Mediation
LBS 5507	Labor and Employment Law
LBS 5930	Topics in Labor Studies
LBS 6906	Directed Individual Study
LBS 6945	Internship in Labor Studies/Alternative Dispute Resolution

Management

MAN 6066	Business Ethics
MAN 6121	Interpersonal Behavior and Analysis
MAN 6209	Organizational Design and Behavior
MAN 6295	Conflict in Organizations
MAN 6405	Labor Relations
MAN 6411	Collective Bargaining Topics

Education

EDA 6225	Labor Relations in Education
EDA 6232	School Law
EDA 7233	Ethics and Educational Leadership
EDA 7236	Law and Higher Education
EDF 6365	Cultural Identities and Conflict
EDF 6366	Conflict Resolution: Negotiation-Based Perspectives
EDF 6367	Interactive Conflict
EDH 6055	Access and Choice in Higher Education
EDS 6050	Supervision and Staff Development

Hospitality

HFT 5545	Leadership Training for Team Building
HFT 6225	Multicultural Human Resources Management in Hospitality
HFT 6226	Motivation and Leadership
HFT 6246	Organizational Behavior in the Hospitality Industry

Public Administration

PAD 5043	Government and Minority Group Relations
PAD 5427	Collective Bargaining in the Public Sector
PAD 6028	Policy Analysis and Planning
PAD 6417	Human Resource Policy and Management
PAD 6436	Professionalism and Ethics
PAD 6434	Leadership in Decision Making

Public Health

PHC 6589	Health Promotion in Institutional Settings
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Dietetics and Nutrition

HUN 6259 Management of Nutrition Services

Track II: Community Conflict Resolution (12 hours)**Education**

EDF 5880 Intercultural Education: National and

International Perspectives

EDF 6365 Cultural Identities and Conflict

EDF 6366 Conflict Resolution: Negotiation-Based Perspectives

EDF 6367 Interactive Conflict Resolution: Third Party Perspective

EDG 5707 Cultural and Cross-Cultural Studies

Environmental Studies

EVR 5355 Environmental Resource Policy

Labor Studies

LBS 5466 Family Mediation

LBS 5467 Civil Mediation

LBS 5930 Topics in Labor Studies

LBS 5465 Introduction to Mediation

LBS 5486 Dynamics of Conflict Management

LBS 6906 Directed Individual Study

LBS 6945 Internship in Labor Studies/Alternative Dispute Resolution

Political Science

POS 5045 Seminar in American Politics

POS 5146 Seminar in Urban Politics

POS 5326 Seminar in Class Analysis

POS 5932 Topics in Urban Politics

Psychology

CYP 5534 Groups as Agents of Change

CYP 6766 The Psychology of Cross-cultural

Sensitization in a Multi-cultural Context

SOP 6752 Psychology of Juries

Public Health

PHC 6311 Environmental Health and Risk Management

PHC 6355 Occupational Health and Safety

PHC 6356 Fundamentals of Industrial Hygiene

PHC 6315 Public Health and Environmental Management

Religious Studies

REL 5149 Religion, Violence and Conflict

Sociology/Anthropology

ANT 5318 American Culture and Society

ANT 6302 Gender Identity in Comparative Perspective

ANT 6319 The African Diaspora

SYD 6236 International Migration and Refugees

SYD 6325 Seminar in Comparative Sociology of Gender

SYD 6616 Comparative Stratification Seminar

SYD 6625 South Florida Socio-Cultural Systems

SYD 6705 Comparative Systems of Ethnicity and Race

SYO 6135 Families and Social Change

SYP 6907 Seminar in Comparative Social Change

Track III: Global Issues and Conflict Resolution (12 hours)**Education**

EDF 5880 Intercultural Education: National and International Perspectives

EDF 6365 Cultural Identities and Conflict

EDF 6366 Conflict Resolution: Negotiation-Based Perspectives

EDF 6367 Interactive Conflict Resolution: Third

Party Perspective

EDF 6658 Selected Topics in International Development Education

EDG 5707 Cultural and Cross-Cultural Studies

Environmental Studies

EVR 5350 International Organizations and Environmental Politics

International Relations

INR 5xxx International Negotiations and Conflict Resolution

INR 5062 War, Peace and Conflict

INR 5086 Islam and International Relations

INR 5275 International Relations of Middle East

INR 5315 Foreign Policy Making

INR 5409 International Relations Law I

INR 5507 International Organizations I

INR 6089 International Relations and Human Rights

INR 6107 Foreign Policy

INR 6338 Seminar in Strategic Studies

INR 6606 Political Psychology of International Relations

Labor Studies

LBS 5465 Introduction to Mediation

LBS 5658 Labor Movements and Economic Development

LBS 5486 Dynamics of Conflict Management

LBS 6906 Directed Individual Study

LBS 6945 Internship in Labor Studies/Alternative Dispute Resolution

Political Science

INR 5105 American Foreign Policy

INR 5087 Ethnicity and the Politics of Development

INR 5007 Seminar in International Politics

INR 6080 Seminar on Non-State Actors

INR 6705 Seminar in International Political Economy

Management

MAN 6601

MAN 6615 International Management International Labor-Management Relations

MAN 6703 Colloquium In Managing Organizational Ethics

Psychology

CYP 5534 Groups as Agents of Change

CYP 6766 The Psychology of Cross-Cultural

Sensitization in a Multi-Cultural Context

Public Health

PHC 6115 International Public Health

Dietetics and Nutrition

HUN 5195 International Nutrition: Problems, Policies and Management

Religious Studies

REL 5149 Religion, Violence and Conflict

Sociology/Anthropology

ANT 6302 Gender Identity in Comparative Perspective

ANT 6319 The African Diaspora

SYD 5447 Sociology of International Development

SYD 6236 International Migration and Refugees

SYD 6325 Seminar in Comparative Sociology of Gender

SYD 6616 Comparative Stratification Seminar

SYD 6705	Comparative Systems of Ethnicity and Race
SYD 6907	Seminar in Comparative Social Change

Course Descriptions

Definition of Prefixes

LBS-Labor Studies

F-Fall semester offerings; S-Spring semester offerings;

SS-Summer semester offerings.

LBS 5155 Workplace Diversity (3). Students examine theoretical debates surrounding workforce participation of women and minorities; historical position of these groups in labor force; social phenomena that contribute to discriminatory practices and development of policies to eliminate discriminatory practices.

LBS 5215 Women in the United States Workplace (3). Students explore womens' changing role in U.S. workplace and development of workers' organizations from Colonial era to modern day. Special attention given to role of class, race, and ethnicity within context of gender.

LBS 5406 Collective Bargaining and Labor Relations (3). A comprehensive study of major issues and themes in American collective bargaining. Includes origins of collective bargaining, labor law, unionization, contract negotiation, patterns in contract content, impact of external laws, public sector unions, grievance arbitration and interest arbitration. Prerequisite: Permission of Instructor.

LBS 5464 Labor Arbitration (3). Study of labor dispute resolution with emphasis on grievances, fact-finding, and arbitration.

LBS 5465 Introduction to Mediation (3). Examines the role of mediation in resolving civil, commercial, family, public, and workplace disputes. Incorporates mediation principles and skills, different approaches to mediation, and current research in mediation. Prerequisite: Permission of Instructor.

LBS 5466 Family Mediation (3). Provides a comprehensive understanding of conflict resolution, power and balances, emotional and psychological issues, negotiation techniques as well as the development of practical skills in the field of family mediation. Prerequisite: Permission of Instructor.

LBS 5467 Civil Mediation (3). A comprehensive understanding of the field of civil mediation as well as the development of the practical skills to be a civil mediator. Prerequisite: Permission of Instructor.

LBS 5485 Fundamentals of Conflict Resolution (3). Survey of the major contemporary theories of organizational functioning and the management of conflict within and among organizations in a globalized world. Theories that center primarily within the fields of dispute resolution, sociology, and social interaction/ group theory will be emphasized. Prerequisite: Permission of Instructor.

LBS 5486 The Dynamics of Conflict Management (3). Investigate conflict and violence, and help students to develop strategies to defuse them in the classroom.

LBS 5507 Labor and Employment Law (3). Familiarizes the student with the legal issues and rules regarding unionization of employees, the collective bargaining process, the relationship between the employee and

his/her union, and the administration of collective bargaining agreements. Examines the legal framework within which collective bargaining occurs and also familiarizes students with additional issues of rights in employment. Prerequisite: Permission of Instructor.

LBS 5658 Labor Movements and Economic Development (3). Relationships between union and economic development strategies in developing/recently developed countries; emphasis on social movement unionism and unions in Latin America and Asia. Prerequisite: Permission of Instructor.

LBS 5930 Topics in Labor Studies (1-3). Selected topics or themes in Labor Studies. Themes will vary from semester to semester. With a change in content, course may be repeated. May include field work. Prerequisite: Graduate standing.

LBS 5931 Topics in the Philosophy and Methods of Conflict Resolution (3). Provides an examination of the philosophy, methods, and research in the field of conflict resolution. The particular content and orientation of the course may vary according to the particular focus examined. Prerequisite: Permission of Instructor.

LBS 6906 Directed Individual Study (3). Specialized intensive study in areas of interest to student. Student plans and carries out independent study project under the direction of faculty member. Topics must relate to content of Labor Studies or ADR. Prerequisite: Permission of instructor.

LBS 6945 Internship Labor Studies / Alternative Dispute Resolutions (3). Practical training and experience in organization according to students needs and interests. Reports and papers required. Prerequisite: Permission of instructor.

Educational and Psychological Studies

Leonard Bliss, *Chairperson and Professor, Educational Research Methodology*

Patricia Barbetta, *Associate Professor, Special Education*

Nicholas Benson, *Assistant Professor, School Psychology*

Linda P. Blanton, *Professor, Special Education*

Judith Cohen, *Special Education, Director in the Office of Field Experiences*

Elizabeth Cramer, *Assistant Professor, Special Education*

Maureen C. Kenny, *Associate Professor, Counselor Education*

Philip J. Lazarus, *Associate Professor, School Psychology*

Adriana McEachern, *Associate Professor, Counselor Education*

Rochelle Michel, *Assistant Professor, Measurement and Evaluation*

Marilyn Montgomery, *Associate Professor, Counselor Education*

Bryan Moseley, *Assistant Professor, Educational Psychology*

Martha Pelaez, *Professor, Educational Psychology*

Joanne Sanders-Reio, *Instructor, Educational Psychology*

Monika Shealey, *Assistant Professor, Special Education*

Abbas Tashakkori, *Professor, Educational Research Methodology*

Jethro W. Toomer, *Professor, Counselor Education*

Diana Valle-Riestra, *Assistant Professor, Special Education*

The Department of Educational and Psychological Studies offers a variety of programs to prepare counselors to work in school and community mental health settings, psychologists to work in the schools, and teachers of students with disabilities. All programs require substantial supervised field-work. State of Florida certification requirements are met or are prerequisites for all programs preparing school personnel. Departmental and program information can be found at our website: <http://www.fiu.edu/~edpsy>.

It is recommended that students meet with an advisor throughout the program to assure adequate progress.

Master of Science

Counselor Education

School Counseling Track

Mental Health Counseling Track

Rehabilitation Counseling Track

Special Education

Exceptional Student Education with ESOL Endorsement Track

Educational Specialist

School Psychology

Doctor of Education

Exceptional Student Education

Master of Science Degree Programs

Educational and Psychological Studies

Programs within the field of Educational Psychology are designed to train professionals to meet the unique needs of individuals who experience cognitive, academic, and/or social-emotional difficulties that interfere with the individual's progress in school and in the community. Specific competencies are delineated for professionals in the fields of special education, school counseling, counselor education, and school psychology. This department also provides courses in educational psychology and educational research.

These programs emphasize the blending of research and theory with practical applied experience. They consider the urban and multicultural nature of the community, as well as more general trends within specific fields. All programs involve extensive field work with accompanying seminars. Independent study courses are available to allow students to pursue specialized interests and needs.

Applicants are required to submit an on-line application to the Office of Graduate Admissions. All applicants must submit official transcripts, three letters of recommendation (at least one from academic sources and one from work or volunteer experience), an autobiographical statement and a curriculum vitae (resume). Candidates are admitted by recommendation of the Department's Graduate Admissions Committee. Minimum criteria for program acceptance include an undergraduate grade point average of 3.2. An interview is required for admissions into the School Psychology program, the Mental Health Counseling, School Counseling, and Rehabilitation Counseling programs.

Students may request to transfer six semester hours earned at another institution into the program provided the course work taken does not exceed a three year time period and meet University's requirements. Transferring in more than 6 hours requires special permission from your advisor and the Dean of the University Graduate School. Students are allowed a maximum of six years from the date of initial enrollment to complete program requirements.

Given the unique nature of the fields of counseling and school psychology requiring mastery of cognitive skills and demonstration of relevant and appropriate interpersonal skills, the faculty retains the right to "counsel out" of the program and/or not recommend for internship placement any student whose level of interpersonal competence is considered incompatible with that required for effective functioning as a practitioner in counseling or school psychology.

All stated admission requirements are to be considered minimal. A student who meets these minimal requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements. Applications are reviewed upon their completion. Allow 6-8 weeks for application to be processed by the Graduate Admissions Office.

All programs preparing school personnel are approved by the State of Florida, and allow students completing the program to be eligible for certification by the State.

Once admitted, each student is responsible for tracking academic progress throughout the program, and a degree

can be revoked if academic dishonesty or fraudulence is discovered.

Counselor Education Program/Tracks

The **Master of Science in Counselor Education Tracks** prepare individuals for professional counseling positions in schools, community mental health settings, and rehabilitation agencies and institutions. These programs emphasize the blending of research and theory with practical applied experience. They also emphasize and reflect the urban and multicultural nature of our community, as well as general trends within specified fields. All programs involve intensive field work with accompanying seminars.

Individuals interested in majoring in Counselor Education can select one of three tracks: School Counseling (58 credits), Mental Health Counseling (61 credits), and Rehabilitation Counseling (60 credits). The early part of each program is largely generic in nature and is concerned with the development of knowledge and skills in the areas of individual and group counseling, consultation, preventive mental health, education-vocational development, client appraisal, systems intervention, and program organization and evaluation. The latter part of each program is more differentiated towards the practice of school counseling, mental health counseling, or rehabilitation counseling. The prospective student should be advised that a substantial amount of time is spent in field work to meet practicum and internship requirements. The student should plan for this field work to be during the day, rather than during evening hours.

The **Master of Science in Counselor Education, School Counseling Track**, is nationally accredited by the Council for the Accreditation of Counseling and Related Education Programs (CACREP) and is approved by the State of Florida Department of Education, the Florida Board of Regents, and accredited by the National Council for the Accreditation of Teacher Education (NCATE). The **Master of Science in Counselor Education, Mental Health Counseling Track**, is nationally accredited by the Council for the Accreditation of Counseling and Related Education Programs (CACREP) and meets all requirements as outlined by the Florida Department of Medical Quality Assurance for licensure as a Mental Health Counselor. The **Master of Science in Counselor Education, Rehabilitation Counseling Track**, meets all requirements as outlined by the Council on Rehabilitation Education (CORE) and prepares students for certification in Rehabilitation Counseling (CRC).

Counselor Education: School Counseling Track (58 credits):

All students entering the School Counseling program with an undergraduate degree in an area other than education must enroll for courses in general professional education as required by the Florida State Department of Education in order to meet state certification requirements in Florida. In addition, all students must have passed the CLAST, or the General Knowledge Exam, or the Praxis I. After July 1, 2002, the CLAST exam may be waived for admission purposes if the student has a score of 1000 and higher on the GRE.

Professional Studies: (6)

EDF 6211	Educational Psychology	3
EDF 5481	Foundations of Educational Research	3

Counseling Core: (25)

EDP 6506	Human Development Across Lifespan	3
MHS 5400	Counseling Skills and Techniques	3
MHS 6802	Personality Theories	3
MHS 6200	Measurement and Appraisal in Counseling	3
MHS 6700	Ethical, Legal, & Professional Issues in Counseling	3
MHS 6428	Cross Cultural Counseling	3
MHS 5350	Educational/Vocational Counseling	3
MHS 6511	Group Counseling	3
MHS 6511L	Group Development Lab	1

Specialization: (15)

SDS 6700	Organization and Administration of School Counseling	3
SDS 6411	Counseling Children and Adolescents	3
SDS 5460	Crisis Counseling and Interventions	3
EEX 6051	Education of Students with Exceptionalities	3
SPS 6199	Family-School Consultation and Collaboration	3

Clinical Experiences: (12)

SDS 6800	Advanced Practicum in Counseling and Consultation	3
SDS 6820	Supervised Field Experience in Counselor Education	9

Corequisites: Students who do not hold a Florida Teacher's Certificate (or that have not taken these courses as an undergraduate student) must complete an additional 15 credits of professional education courses covering social, historical, and philosophical foundations, classroom management, general methods of teaching, TESOL, and reading. One course in each of the following subject areas must be completed prior to the awarding of the school counseling degree.

Courses that satisfy these requirements include:

Social, Philosophical, & Historical Foundations

(choose one):

EDF 3515, EDF 3521 taken as an undergraduate,
EDF 5517, EDF 6608 taken as a graduate student.

Classroom Management (choose one):

EDP 5219 Classroom Management
EEX 5608 Behav. Approach to Classroom Learning and Management

General Methods of Teaching (choose one):

EDG 5414, ESE 6215, EDA 6061, EDE 6205, or EDG 6250

TESOL:

TSL 5372 TESOL Issues and Methodologies

Reading (choose one):

EEX 5259 Literacy in Special Education
RED 5339 Subject Related Reading
RED 6336 Reading in the Content Area

Graduation Requirements:

Students entering this program on or after Fall 2001 must:

- Have overall GPA of 3.0
- Successfully demonstrate satisfactorily all Florida Educator Accomplished Practices
- Have a passing score on all sections of the Florida Teacher Certification Exam. Students who hold a Florida certificate received prior to July 1, 2002, are required to pass only the subject area exam. For students who do not hold a valid

Florida certificate, are required to pass all sections of the test:

- Professional Education Exam
- Subject Area Exam in Guidance Counseling
- General Knowledge Exam

Field Requirements

Application for professional experiences must have faculty advisor approval and must be submitted to the office of the director of student teaching by February 1 for fall semester placements and July 1 for spring placements.

Counselor Education: Mental Health Counseling Track (61 credits):

Students seeking admission to the track in Mental Health Counseling with an "out of field major" are required to successfully complete 9 hours of prerequisite psychology courses prior to acceptance. Out of field majors are students who do not hold a Bachelor's degree in Psychology (or a related field). The student should consult with an advisor with reference to these courses. Required prerequisite courses for "out of field" majors applying for admission to the graduate program in Mental Health Counseling include:

- An introductory course in Psychology (e.g., PSY 2020 Introduction to Psychology),
- A course in either:
 - o Educational Psychology (e.g., EDP 3004 Educational Psychology), or
 - o Abnormal Psychology (e.g., CLP 4144 Abnormal Psychology),
 - o Or Personality Theories (e.g., PPE 3003 Personality Theory), and
- A Research/Statistics course (e.g., STA 3122 Research-Statistics).

NOTE: The course numbers of the above prerequisite courses are those used at FIU. All prerequisite courses must be completed with a minimum grade of a "C" in each course and a cumulative grade point average of 3.0 for all courses taken.

Counseling Core: (28)

EDP 6506	Human Development: Across the Lifespan	3
MHS 5400	Counseling Skills and Techniques	3
MHS 6802	Personality Theories	3
MHS 5350	Educational Vocational Counseling	3
MHS 6428	Cross Cultural Counseling	3
SDS 5460	Crisis Counseling and Interventions	3
SDS 6411	Counseling Children and Adolescents	3
MHS 6511	Group Counseling	3
MHS 6511L	Group Development Lab	1
MHS 6700	Ethical, Legal, and Professional Issues in Counseling	3

Measurement and Research: (6)

EDF 5481	Foundations of Educational Research	3
MHS 6200	Measurement and Appraisal in Counseling	3

Specialization: (15)

MHS 6740	Foundations of Mental Health Counseling	3
MHS 6411	Counseling and Consultation in Community Settings	3
MHS 6427	Adult Psychopathology	3
MHS 6470	Human Sexuality Counseling	3

MHS 6450	Substance Abuse Counseling	3
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Clinical Experiences: (12)

MHS 6800	Advanced Practicum in Counseling and Consultation	3
MHS 6820	Supervised Field Experience Counseling	9

Note: This program of study is subject to change at anytime.

Field Requirements

Application for clinical experiences must have faculty advisor approval and be submitted to the Office of Student Teaching or to the Counselor Education Programs Clinical Director by June 15 for a Fall or Summer semester placement and October 1 for a Spring semester placement.

Counselor Education: Rehabilitation Counseling Track (60 credits):

Counseling Core: (30)

EDP 6506	Human Development Across the Lifespan	3
MHS 5400	Counseling Skills and Techniques	3
MHS 5350	Educational-Vocational Counseling	3
MHS 6802	Personality Theories	3
MHS 6411	Advanced Counseling and Consultation in Community Settings	3
MHS 6700	Ethical, Legal, & Professional Issues in Counseling	3
MHS 6428	Cross Cultural Counseling	3
MHS 6511	Group Counseling	3
MHS 6427	Adult Psychopathology	3
MHS 6470	Human Sexuality Counseling	3

Measurement and Research: (6)

EDF 5481	Foundations of Educational Research	3
MHS 6200	Measurement and Appraisal in Counseling	3

Specialization: (12)

RCS 6031	Rehabilitation Counseling: Principles and Practices	3
RCS 6625	Service Delivery and Case Management in Rehabilitation Counseling	3
EEX 6203	Psychological/Sociological Aspects of Disability	3
EEX 6208	Medical Aspects of Disability	3

Clinical Studies: (12)

RCS 6801	Advanced Practicum in Rehabilitation Counseling	3
RCS 6821	Supervised Field Experience in Counseling Rehabilitation Counseling	3

Field Requirements

Application for clinical experiences must have faculty advisor approval and be submitted to the Office of Student Teaching or to the Counselor Education Programs Clinical Director by June 15 for a Fall or Summer semester placement and October 1 for a Spring semester placement.

Special Education

The Department offers an advanced masters degree in special education (for those who hold a Florida certification in special education) and a master's degree track in Exceptional Student Education with an English for

Speakers of Other Languages (ESOL) endorsement (for those who have an undergraduate degree in a field other than education). There is also a doctorate in Exceptional Student Education.

The Master of Science Program in Special Education is for students already certified in an area of Exceptional Student Education. It consists of a common core of 27 credits in advanced areas of special education, plus a choice of 9 credits in an area of concentration. Some areas of concentration may lead to additional endorsement or certification. Special areas of concentration may be planned with the advisor. This program has a total of 36 credits.

The track to the special education degree is a Masters of Science degree in Exceptional Student Education with an ESOL endorsement which is 64 credits. This track is for students holding a baccalaureate degree in an area other than education. This track has all of the necessary coursework and fieldwork to earn an initial certification in exceptional student education with an ESOL endorsement. It provides the student with entry level skills for teaching students with mild disabilities and the appropriate course work to be certifiable in exceptional student education and ESOL. In addition, ESOL competencies are taught in infused courses as well as stand alone courses.

The Doctoral Program in Exceptional Student Education prepares students for administrative, supervisory, research, and or university faculty positions in Special Education.

Master of Science Degree in Special Education

The major competencies in the Master's Degree program in Special Education are an extension and refinement of those developed by the student in the undergraduate special education curriculum.

Program applicants are required to submit an on-line application to the Office of Graduate Admissions, three letters of recommendation (at least one from academic sources and one from work or volunteer experience), and an autobiographical statement. Candidates are admitted by action of the Department's Graduate Admissions Committee. Criteria for program acceptance include undergraduate grade point average of 3.0 or higher for the last 60 hours of upper division coursework, work and volunteer experience, quality and source of letters of recommendation, and the candidate's career aspirations and goals. Applicants with less than a 3.0 GPA may be granted conditional admittance. These applicants must take 12 graduate credits and earn a 3.25 GPA to be considered for full admittance. Applicants who do not hold a valid Florida Teaching Certificate must complete all requirements for certification in addition to degree requirements. There are some variations in entrance requirements for in-field vs. out-of-field majors. See specifics under each description that follows.

In-Field Majors

The following master's program of study is for the student who holds Florida certification in the field of special education. To qualify for admission to the program, students must have the following.

- An undergraduate GPA of 3.0 or higher in the last 60 credit hours of undergraduate study.
- A valid Florida teaching certificate in special education. If the applicant does not hold a valid

Florida teaching certificate, all certification requirements must be met.

- Three letters of recommendation with at least one from an academic source and one from work or volunteer experiences.
- A well written autobiographical statement.

Degree Program Hours: (36)

Required Core For All Students: (27)

EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
EDP 6211	Educational Psychology: Foundations and Applications	3
EDF 5481	Foundations of Educational Research	3
EEX 6848	Seminar in Special Education: Issues and Trends	3
EEX 6535	Seminar in Special Education: Supervision and Leadership	3
EEX 6912	Advanced Theory and Research in Special Education	3
SPS 6199	Family-School Consultation and Collaboration	3
EEX 6765	Instructional Technology	3
EEX 6228	Integration of Assessment, Curriculum and Instruction	3

Area of concentration

Area of concentration may be selected from an endorsement such as ESOL, reading, or other areas as planned and approved by student and advisor.

Masters of Science Track: Exceptional Student Education with ESOL Endorsement (64 credits)

This track is for students holding a baccalaureate degree outside of education and prepares students for entry level positions in the field of Exceptional Student Education for students with mild disabilities.

Admission requirements include:

- A GPA of 3.0 or higher in the last 60 credit hours of undergraduate study.
- A baccalaureate degree from an accredited institution.
- Three letters of recommendation (at least one from an academic source and one from work or volunteer experiences).
- A well written autobiographical statement.
- Passing scores on all sections of the CLAST.

Professional Studies

EDG 5414	Instructional Strategies for the Classroom Teacher	3
EDP 5053	Educational Psychology: Principles and Applications	3
EDF 5517	Philosophical and Historical Foundations of Education	3
TSL 5371	Special Methods for TESOL	3
TSL 5142	Curriculum Development in ESL	3
EEX 6051	Education of Students with Exceptionalities	3
EEX 6106	Acquisition of Speech and Language Skills	3
EEX 6225	Educational Assessment of Students with Exceptionalities	3

EEX 5608	Behavioral Approaches to Classroom Learning and Management	3
EEX 5075	Teaching Students with Exceptionalities in Inclusive Settings	3
EDP 5219	Classroom Management	3
EEX 5259	Literacy in Special Education	3
EEX 5766	Instructional and Assistive Technology in Special Education	3
RED 4150	Teaching Primary Literacy	3
MAE 4310	Teaching Elementary Math	3
RED 4325	Subject Area Reading	3
EEX 5841	Graduate Supervised Practicum	1
EEX 5068	Instructional Practices in Exceptional Student Education I	3
EEX 5069	Instructional Practices in Exceptional Student Education II	3
EEX 6862	Student Teaching	6
	or	
EEX 6863	Supervised Field Experience	6

Note: The following courses within the ESE/ESOL track program require a total of 10 to 20 hours of field placement per semester during school hours. EEX 6051, EEX 5075, RED 4150, RED 4325, MAE 4310, TSL 5371, and TSL 5142. In addition, during the semester prior to student teaching, along with class attendance at the University, students must take EEX 5841 which requires 120 hours of field placement (20 hours per week for 6 weeks or 15 hours for 8 weeks). Note that EEX 5068 must be taken with EEX 5841. EEX 6862, student teaching, requires full-time placement in the field. Those teaching in an special education classroom may be given permission to take EEX 6863 (supervised field experience) in their classroom instead of EEX 6862. Permission to take EEX 6862 or EEX 6863 during student teaching is contingent upon satisfactory completion of all requirements specified in the program. Applications to student teach must be filed in the office of the Director of Internship and Student Teaching by the date indicated by the student teaching office preceding the Spring Student Teaching semester. **Please confirm this due date with your advisor.** The due date is subject to change.

All stated admission requirements are to be considered minimal. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Graduation Requirements

- GPA of at least 3.0
- Successful demonstration of the Florida Educator Accomplished Practices
- Passing all three sections of the Florida Teacher Certification Exam.

Note: If you pass the CLAST prior to July 1, 2002, you do not need to take the new General Knowledge test.

Educational Specialist in School Psychology

The program in School Psychology requires a minimum of 80 semester hours and leads to State of Florida certification as a specialist in School Psychology as well as educational requirements for private practice licensure. This program leads to the Educational Specialist Degree. More complete program descriptions may be obtained in the departmental office or call (305) 348-2552.

The competencies to be demonstrated by the student completing this program are derived from the following: behavioral/educational assessment and planning; counseling and home-school consultation and collaboration with teacher, parents, and school staff; crisis intervention; classroom interventions; liaison referral, program development and evaluation; in-service education; and community outreach.

Admission Requirements

For admission into our program, students will be required to:

- submit all transcripts,
- have a 3.2 grade-point average in their last 60 semester hours of upper division coursework,
- have a minimum of 15 semester hours of credits in psychology,
- submit a curriculum vitae,
- write an autobiographical sketch (see application packet),
- submit a minimum of three letters of recommendation,
- one of the following:
 - passing scores on all sections of the Praxis I: Pre-Professional Skills Assessments,
 - passing scores on all sections of the Florida Teacher Certification General Knowledge Test; students who passed all sections of the College-Level Academic Skills Test (CLAST) exam prior to July 1, 2002 may submit these scores in lieu of this requirement,
 - earn a score of 1000 (Verbal + Quantitative) on the Graduate Record Examination (GRE),
 - submit a writing sample if deemed necessary, and
 - participate in an interview with the admissions committee.

Not all candidates who meet these minimum criteria are accepted into the program.

Degree Hours: (80)

Psychological Foundations (12)

SPS 7195	Child Psychopathology: Assessment and Intervention in the Schools	3
SPS 7705	Neuropsychological Issues in the Schools	3
EDF 6211	Educational Psychology: Applied Foundations	3
EDP 6505	Human Development: Childhood and Adolescence	3
	or	
EDP 6506	Human Development: Across the Life-Span	3

Educational Foundations (9)

EEX 5259	Literacy in Special Education	3
EEX 6051	Education of Students with Exceptionalities	3
(required for students without a special education background)		
SPS 6805	Professional Problems and Issues in School Psychology	3

Assessment (16)

SPS 6191	Psycho-Educational Assessment I: Intellectual	3
SPS 6191L	Psycho-Educational Assessment I: Lab	2

SPS 6192	Psycho-Educational Assessment II: Process	3
SPS 6192L	Psycho-Educational Assessment II: Lab	2
SPS 6193	Psycho-Educational Assessment III: Behavior	3
SPS 6190	Academic Assessment and Intervention in the Schools	3

Interventions (15)

SPS 7407	Behavioral Interventions in the Schools	3
MHS 5400	Counseling Skills and Techniques	3
SDS 5460	Crisis Counseling and Intervention	3
SPS 6199	Family-School Consultation and Collaboration	3
EDF 6444	Consultation and Assessment with Culturally and Linguistically Diverse Populations	3

Research and Measurement Methodology (9)

EDF 5481	Foundations of Educational Research	3
EDF 6432	Measurement and Evaluation in Education	3
EDP 7058	Behavioral Intervention Research and Evaluation in Education	3

Supervised Field Experience (13)

SPS 6193	Psycho-Educational Assessment III: Practicum	3
SPS 6678	Supervised Field Experience in School Psychology (1200 clock hours)	10

Electives (6)

At least two of the following:

MHS 6511	Group Counseling	3
SDS 6411	Counseling Children and Adolescents	3
SPS 6578	Supervised Practicum in School Psychology	3

The student is required to enter an internship in School Psychology under the supervision of a field based school psychologist for a period of 1200 clock hours. This internship is a full-time, eight hour day, five day week involvement and students entering the program should plan for it during the final stage of their training. At least 600 hours of the internship must be in a setting from kindergarten to grade 12 in a public school. Other approved internship experiences may include private state approved educational programs or other appropriate mental health-related programs or settings for the education of children and youth.

All students entering the School Psychology program with an undergraduate degree in an area other than education must enroll for the courses in general professional education required to meet certification requirements in the State of Florida. Students who do not have Florida Teacher Certification must complete TSL 5472 and RED 4325.

Graduation Requirements:

- GPA of at least 3.0
- Successful demonstration of the Florida Educator Accomplished Practices (FEAPs)
- Passing the Florida Department of Subject Area Examination in School Psychology
- Passing all sections of the General Knowledge Test or passing all sections of the CLAST prior to July 1, 2002

- Passing the Professional Education section of the Florida Teacher Certification Exam

Doctor of Education in Exceptional Student Education

The Doctoral Program in Exceptional Student Education prepares leadership personnel capable of advancing educational opportunities available to students with disabilities and the professional who serves them. The program prepares professionals for a broad view of leadership, capable of assuming roles as administrator, curriculum specialist, researcher, advocate, in-service and preservice trainer and others. Graduates take on leadership positions in schools, state government, private non-profit agencies, professional organizations, and other institutions of higher education.

Admission Requirements

The College of Education has common admission requirements for its Doctoral Programs regardless of the specialty sought. Applicants to the program must submit the following records and documents to the Office of Admissions:

1. An on-line Application for the Graduate Admissions Office with appropriate fees. (<http://gradschool.fiu.edu>)
2. An official copy of the Graduate Record Exam (GRE) scores.
3. Official transcripts of all higher education institutions attended.

Additionally, applicants must submit the following to the Office of Advanced Graduate Studies in the College of Education.

1. Three letters of reference attesting to the applicant's ability to succeed in doctoral study.
2. A current resume/vitae.

Application packets can be downloaded at http://www.fiu.edu/~edpsy/sped_ms.htm. It is recommended that interested applicants contact a special education advisor at (305) 348-2552 to discuss the program in detail. No action will be taken on incomplete files. A file is considered incomplete if any of the above is missing.

The application and all supporting documentation are reviewed by program faculty. An on-site interview will be scheduled for viable candidates. The criteria applied in reviewing the applicant's file are noted below. Exceptions to one or more of the stated criteria may be granted provided the applicant can provide compelling reasons and evidence.

1. A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper level undergraduate work;
2. A 3.25 GPA in all graduate work attempted;
3. A master's degree from an accredited institution;
4. A minimum combined verbal and quantitative score of 1000 on the GRE;
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Upon completion of the review of the file, the applicant will be interviewed by program and departmental faculty which comprise a Faculty Admissions Committee. Final admission recommendations are made by the Faculty

Admissions Committee and the Dean of the College. As admission to programs is competitive, meeting minimum admission requirements does not assure admission into the program. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals. Additional information is available from the Coordinator of Doctoral Programs or Program Faculty.

Professional Studies Core: (6)

EDP 7057	Educational Psychology: Advanced Applications	3
EDF 7937	Advanced Topics in Social Foundations of Education	3

Special Education Core: (18)

EEX 7930	Professional Seminar in Special Education (repeated 6 times)	1
EEX 7933	Advanced Topics in Special Education (repeated 2 times)	6
EEX 6912	Advanced Theory and Research in Special Education	3
EEX 6535	Seminar in Special Ed.: Supervision and Leadership	3
EEX 7977	Research and Evaluation in Special Education	3
EEX 7964	Comprehensive Examination	0

Research Methods and Statistics: (12)

EDF 6472	Research Methods in Education: Introduction to Data Analysis	3
EDF 6486	Advanced Data Analysis in Quantitative Educational Research	3
EDP 7058	Behavioral Intervention Research and Evaluation in Education	3
EDF 7403C	Data Analysis in Multivariate Educational Research	3
	or	
EDF 6475	Qualitative Foundations of Educational Research	3

Cognate or Minor Area of Study (15-18)

Course work in a career emphasis including: Administration and Supervision, Educational Psychology, or a self-designed minor area of study. A majority of students design a cognate area with their Program of Study Committee.

Dissertation Study (24)

EEX 7980	Ed.D. Dissertation	
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Other Requirements:

Leadership competency activities, candidacy research, candidacy examination, dissertation proposal, dissertation, oral defense of dissertation.

Doctoral Cognate in Educational Psychology

The doctoral cognate in Educational Psychology provides advanced professional development for students already working toward the Doctor of Education in a number of majors available within the College.

The cognate prepares students in one of three areas of educational psychology: 1) learning and instruction, 2) individual differences in development, and 3) measurement and assessment. The cognate provides students with foundational and advanced applications of psychology by offering alternative programs of study. It

also gives students the opportunity to work with faculty members in educational psychology, school psychology, school counseling, mental health, and special education programs and departments. A student who completes the cognate in Educational Psychology at the doctoral level is expected to: a) apply psychological principles to contemporary issues in education; b) seek ways to improve educational practice, evaluation, and assessment; c) develop innovative and facilitative teaching/learning procedures at all developmental levels; and d) analyze the major psychologically based programs for educational reform. The cognate assists doctoral students to design research in their individual fields of study. (See Advisor)

Course Descriptions

Definition of Prefixes

ADE - Adult Education/Human Resource Development; AFA - African-New World Studies; APK - Applied Kinesiology; ARE - Art Education; CGS - Computer Applications; CHD - Child Development; EDA - Education: Educational Leadership; EDE - Education: Elementary; EDF - Education: Foundations; EDG - Education: General; EDH - Education - Higher; EDP - Education: Psychology; EDS - Education: Supervision; EEC - Education: Early Childhood; EED - Education: Emotional Disorders; EEX - Education: Exceptional Child, Core Competencies; EGI - Education: Exceptional Child, Gifted; EIA - Education: Technology; ELD - Education: Specific Learning Disabilities; EME - Education: Technology and Media; EMR - Education: Mental Retardation; ESE - Education Secondary; EVT - Education: Vocational/Technical; FAD - Family Development; FLE - Foreign Language Education; HEE - Home Economics Education; HHD - Housing; HLP - Health, Leisure, and Physical Education; HME - Home Management Equipment; HOE - Health Occupations Education; HSC - Health Sciences; LAE - Language Arts and English Education; LBS-Labor Studies; LEI - Leisure; MAE - Mathematics Education; MHS - Mental Health Services; MUE - Music Education; PEL - Physical Education; PEM - Physical Education Activities; PEO - Physical Education Activities; PEP - Physical Education Activities; PET - Physical Education Therapy; RED - Reading Education; SCE - Science Education; SDS - Student Development Services; SPS - School Psychology; SSE - Social Studies Education; TSL - TESOL. F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering; ALT-alternate years; AR-as required.

ADE 5383 Instructional Analysis and Design (3). This course includes analyzing models for instructional analysis and design. Identifying the target population, instructional needs, job and task analysis. Developing learning objectives and related design. Prerequisites: ADE 5386, or ADE 5387, or permission of the instructor. (F)

ADE 5386 Individual Learning and Adult Education (3). Students differentiate learning theories related to teaching adults, contrast characteristics of adults relative to youth, and evaluate the implications of these relative adult learning situations. (F)

ADE 5387 Organizational Learning and Human Resource Development (3). Developing rationale and philosophy of human resource development and understanding theories of workplace and organizational learning. Understanding and applying models of organizational learning. (S)

ADE 6074 Writing for Publication in Adult Education and Human Resource Development (3). Students develop an understanding of the scholarly writing process and produce scholarly work for submission. Topics include topic selection and manuscript organization, preparation, and review. (SS)

ADE 6180 Organizational and Community Processes in AE/HRD (3). This course analyzes human resource and community development programs, the processes and implemental strategies; needs assessment objectives,

curricula, recruitment, implementation, and evaluation. (SS)

ADE 6186 Comprehensive Program Evaluation in AE/HRD (3). This course incorporates development of a comprehensive strategy for evaluating complex educational, training, human resource and organizational development programs. (SS)

ADE 6195 Perspectives on Adults with Disabilities (3). In this course the student will distinguish the various perspectives of the employment, inclusion, and education of adults with disabilities; analyze forces that inhibit solutions; and develop programs, curricula, materials, recruitment strategies, and evaluation designs. (F/Even years)

ADE 6260 Management of AE/HRD Programs (3). This course is composed of analyzing regulations affecting adult education/human resource development, selecting and training staff; selecting organizational patterns; executing managerial responsibilities; administering supportive services; relating training to organization development. (F)

ADE 6286 Instructional Development and Implementation (3). The course includes the following: 1. a systematic approach to developing instructional materials and strategies appropriate to adult and organizational needs and 2. implementation strategies including instructional delivery skills for adult learning. Prerequisite: ADE 5383 or permission of the instructor. (S)

ADE 6360 Adult Teaching Methods (3). Students explore adult teaching philosophy and methods and prepare to teach in a variety of adult learning environments such as higher education, community education, ABE, TESOL and adult literacy. Prerequisites: ADE 5386 or permission of instructor.

ADE 6476 Computer Based Training (3). This is a basic course in computer based instruction and training which includes the application of instructional design to CBT, and proficiency in an authoring software. Prerequisites: ADE 5383 and working knowledge of personal computers are recommended. (S)

ADE 6674 Trends and Issues in AE/HRD (3). This course is comprised of presentation and analysis of state-of-art trends impacting development of human resources in specific organizations including educational agencies/business & industry/public sector and commerce. Prerequisites: ADE 6180 or equivalent. (F/Odd years)

ADE 6906 Directed Study in Adult Education and Human Resource Development (1-3). This is a course of specialized intensive study in areas of interest to the student. Prerequisite: Permission of the instructor. (AR)

ADE 6925 Workshop in Adult Education and Human Resource Department (1-6). The course includes intensive development of selected competencies related to instructional, curricular and/or administrative skills of special interest to students in adult education/human resource development. (AR)

ADE 6930 Seminar in Adult Education and Human Resource Development (1-3). This course consists of intensive study of instructional, curricular, and/or administrative principles and practices for the solution of

problems of special interest to students in adult education and human resource development. (AR)

ADE 6935 Special Topics in Adult Education and Human Resource Development (1-3). These are 'Mini-courses' which provide for an examination of special facets of adult education and human resource development. (AR)

ADE 6945 Internship in Adult Education or Human Resource Development (3 or 6). This course is required in both masters programs. Internship in organizations are according to students' needs & interests. Supervisory visits & conferences are periodically conducted. Prerequisites: ADE 6180, ADE 6260, ADE 6286 or permission of the instructor. (F)

ADE 6946 Teaching Practicum (3). With faculty supervision, students deliver instruction to acquire teaching experience in an adult education environment such as higher education, community education, ABE, TESOL or adult literacy. Prerequisites: Permission of the instructor. (AR)

ADE 7475 Comparative Systems, Strategies and Materials for Adult Education/HRD (3). This course is a review and critique of the prevailing inventory of packaged systems on the market. Examination of assumptions and problems surrounding their actual usage in local and national organizations will be addressed. Prerequisites: ADE 6180, ADE 5383. (SS/Odd years)

ADE 7571 Consulting as an Adult Education/HRD Process (3). This course includes examination of use of internal/external consultation in organizations and strategies for making entry diagnoses interventions achieving internalization of processes outcomes. (SS/Even Years)

ADE 7772 Review of Research in Adult Education and Human Resource Development (3). This course is required in the doctoral program and is composed of a review and synthesis of research & development activities in Adult Education/HRD; Examination of resources/practices/designs & justifications; and assessment of the status of research in this field. Prerequisites: At least six doctoral research credit hours. (F)

ADE 7920 Colloquium in AE/HRD (1-6). Lectures & discussions are given by distinguished educators/social scientists/organizational executives/graduate faculty and students. The colloquia present specific topics related to issues/trends/designs and applications. (S/Odd years)

ADE 7964 Comprehensive Doctoral Examination, Adult Education/HRD (0). This course is the comprehensive doctoral examination in the Adult Education/Human Resource Development. Prerequisite: Permission of Major Professor. (F,S,SS)

ADE 7980 Ed.D. Dissertation (1-12). This course focuses on research for doctoral dissertation for those students approved for candidacy in the Adult Education/Human Resource Development Program. Prerequisites: Permission of Major Professor and Doctoral Candidacy. (F,S,SS)

ADE 7985 Dissertation Defense (0). This course is the defense of dissertation. Prerequisites: Permission of Major Professor and ADE 7980. (F,S,SS)

AFA 6325 Pedagogy in the African Diaspora: Literacy, Culture, Race and Gender (3). This course explores pedagogy broadly throughout the African Diaspora through critical examinations of race, culture, gender and praxis. The course provides opportunities for research in schooling, teacher preparation and gender/class/race based literacy at home and abroad.

APK 6118C Rehabilitation Techniques in Athletic Training with Lab (4). Introduction to basic principles of rehabilitation of athletic injuries, including range of motion, pain control, balance, proprioception, strengthening, and endurance. Prerequisite: PET 4642C. Corequisite: PET 5678.

ARE 5457C Introduction to Computer Art (3). Exploration of the color computer, peripherals and selected software as tools for creating expressive art. Individual imaging projects, lesson plans, readings and presentations required. (AR)

ARE 5553 Introduction to Art Therapy (3). An overview of art therapy as a verbal and nonverbal means of communication with special emphasis on psychodynamic fundamentals inherent to the process for the purpose of diagnosis, treatment, and intervention for people with special needs. (AR)

ARE 5555C Advanced Art Therapy (3). Examination of strategies, techniques and current theoretical approaches in art therapy. Delineation and application of an individual field experience is required. Prerequisite: ARE 5553. (AR)

ARE 5905 Directed Study in Art Education (1-6). Individual investigation and research in one or more areas of art education. Prerequisite: Consent of professor. (F,S,SS)

ARE 5945 Supervised Teaching: Art Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Program and completion of prerequisite course work in education and subject matter area. Supervised teaching in an elementary or secondary school. (S)

ARE 6140 Curriculum and Instruction in Art (3). Examination of theoretical bases of curriculum development in art education. Analysis of objectives, content, methods, and materials for art instruction in the elementary, junior, and senior high school. (S)

ARE 6262 Organization and Coordination of School and Community Art (3). Procedures for the organization, coordination and evaluation of school, community, and inservice art programs, with particular attention to the urban multicultural setting. (F)

ARE 6304 Instruction in Early Childhood Art (3). Elective in masters program in Early Childhood Education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, for preschool, kindergarten and primary grades teachers. Lab fees required. (F,S,SS)

ARE 6315 Instruction in Elementary Art (3). Elective in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of art materials, and review of research, for elementary teachers. (AR) Lab fees required.

ARE 6746 Seminar in Art Education: Contemporary Issues and Research (3). Examination of current issues and review of research in art education literature. Delineation and application of an individual research problem. Prerequisite: EDF 5481. (SS)

ARE 6925-29 Workshop in Art Education (3). Production and application of materials and techniques in art education, in a laboratory or field setting. Lab fee required. (SS)

ARE 7938 Doctoral Seminar in Art Education (3). Advanced doctoral study in current theories and research related to art education. Prerequisites: ARE 6746 and EDF 6486. (F,S,SS)

CHD 5266 Advanced Studies in Child Development (3). Survey of current literature on selected areas, analysis of trends and issues, and investigation of recent research in Child Development. Prerequisites: CHD 3220, CHD 4210 or equivalent. (AR)

CGS 5410 Logo for Educators (3). Aspects of Logo as used by educators. Creative aspects, the language, philosophy, structure, and application. Prerequisites: Computers in Classroom or equivalent. (AR)

CGS 5413 PILOT for Educators (3). Authoring language PILOT for teachers. Designed to develop language and its application to all levels of education. Prerequisites: EME 6405 or equivalent. (AR)

EBD 5225 Strategies for Students with Emotional Handicaps (3). Instructional strategies and specialized approaches for teaching students with emotional handicaps. Extensive field work required. Prerequisites: EDG 5414 and Lab, EEX 6051, EEX 6227, EEX 5608. (S)

EBD 6226 Advanced Theory and Practice: Emotional Handicaps (3). Major theories in the area of behavior disorders, and skills in the application of these theories to education. (S,SS)

EDA 6061 Introduction to Educational Leadership (3). This course is an Introduction to Educational Administration/Leadership as a field of both study and practice. Emphasis is placed on the social, economic, and political context of contemporary educational administration; the organization, governance, and control of American education; and Educational Administration/Leadership as a profession and career. (F,S)

EDA 6063 Administration of Independent Schools (3). This is a survey course that examines the administration of private schools. (AR)

EDA 6192 Leadership in Education (3). This course will include review, analysis and application of concepts and theories of leadership with emphasis on organizational and environmental factors, group dynamics, and change processes in education. (F,S)

EDA 6195 Communication in Educational Leadership (3). This course consists of analysis of principles, processes, and techniques of effective communication, public relations in educational leadership, and school-community relations. (S)

EDA 6225 Labor Relations in Education (3). This course examines relations between the school board and its employees. (AR)

EDA 6232 School Law (3). This is a basic course in school law. (F,S,SS)

EDA 6242 School Finance (3). This course describes and analyzes current and emerging school finance plans; the influence of the courts and federal and state legislation on those plans; the Florida Education Finance Plan; and the budget responsibilities of the school principal. (S)

EDA 6271C Administering Educational Technology (3). This course is designed to provide pre-service and in-service administrators with the theoretical and practical knowledge necessary for planning and implementing technology in schools. Students will develop a knowledge base of technology applications essential for educational administrators. (F)

EDA 6503 Instructional Leadership (3). This course focuses on the role of instructional leadership in schools and the role of school administrators in promoting and sustaining instructional leadership. (F)

EDA 6905 Directed Study in Educational Leadership (1-3). This course is for advanced graduate students wishing to engage in independent study under the direction of a faculty member. Prerequisites: Admission to master's program and permission of instructor. (F, S,SS)

EDA 6925 Workshop in Educational Administration and Supervision (1-6). This course offers an opportunity for experienced school personnel to participate in a problem-solving workshop. (AR)

EDA 6928 Special Topics: School Improvement (1-6). This course offers an opportunity for experienced school personnel to participate in a school improvement workshop. (AR)

EDA 6930 Seminar in Educational Leadership (3). This course is a review of selected concepts and competencies in the field of educational leadership. (AR)

EDA 6941 Practicum in Educational Leadership (3). This course consists of application of theory and research to field-based problems in educational administration/leadership. Prerequisite: Permission of the instructor. (AR)

EDA 6943 Administrative Internship (1-6). This course will provide supervised field experience appropriate to the student's interests and professional goals. Prerequisite: Permission of the instructor. (AR)

EDA 6945 Colloquium in Educational Administration (3). This course examines selected contemporary policy and practice issues in educational administration and supervision. It is repeatable with permission of the instructor. (AR)

EDA 7069 Educational Policy (3). This course is a review, analysis, and synthesis of various concepts and models of educational policy formation and implementation. It is for doctoral students only.

EDA 7103 Theories of Educational Administration (3). This course is an examination of theoretical constructs and models related to the organization and administration of educational institutions. Prerequisite: Admission to doctoral program. Doctoral students only.

EDA 7233 Ethics and Educational Leadership (3). This course is an exploration of ethical concepts and issues in

educational administration and leadership that emphasizes the enhancement of personal and professional skills of ethical reasoning and reflection in decision-making situations. (AR)

EDA 7236 Law and Higher Education (3). This course analyzes the legal structure of higher education, including religion, academic freedom, employment, due process, student's rights, desegregation, tort liability, and other issues. (AR)

EDA 7288 Politics of Education (3). This course is an analysis of the political dynamics of educational governance and the political dimension of educational administration. Doctoral students only. (F)

EDA 7550 Administration of Higher Education (3). Analysis of colleges and universities as social organizations with special emphasis on issues of administration, organization, and governance in higher education. (AR)

EDA 7905 Directed Study in Educational Administration and Supervision (1-6). This course is for advanced graduate students wishing to engage in independent study under the direction of a faculty member. Prerequisite: Permission of the instructor. (F,S,SS)

EDA 7930 Seminar in Educational Administration and Supervision (3). This course considers critical issues and problems in the administration of educational institutions. (AR)

EDA 7937 Special Topics in Higher Education Administration (3). This seminar is devoted to the in-depth treatment of selected special topics in theory, research, and practice related to higher education administration. (AR)

EDA 7943 Field Projects (1-6). This course includes participation by advanced graduate students in field projects and studies. Prerequisite: Permission of the instructor. The course may be repeated with permission of the instructor (AR)

EDA 7961 Dissertation Research Seminar (3). This course is designed to provide advanced doctoral students with a knowledge and understanding of the process of dissertation research and writing and of the dissertation defense. Prerequisite: Advanced doctoral standing. (AR)

EDA 7964 Comprehensive Doctoral Examination, Educational Administration and Supervision (0). This is the comprehensive doctoral examination in Educational Administration and Supervision. Prerequisite: permission of major professor. (F,S,SS)

EDA 7980 Ed.D. Dissertation (1-12). This course consists of research for doctoral dissertation. Prerequisite: Permission of major professor and doctoral candidacy. (F,S,SS)

EDA 7985 Dissertation Defense (0). This is the defense of doctoral dissertation. Prerequisite: Permission of the major professor and EDA 7980. (F,S,SS)

EDE 5041 Issues in Elementary Education (3). Provides understanding, skills, and dispositions needed to build an initial knowledge base as to issues that impact elementary education from the historical, philosophical, sociological, psychological, international and contemporary

perspectives. The course serves as an introduction to the field of elementary education. Corequisite: EDE 5XXX.

EDE 5267 Education of the Child in Urban Society (3). For students desiring advanced study in the schooling of inner-city pupils in K-6. Prerequisites: EDF 3723, EDG 3321, EDG 3322. (AR)

EDE 5905 Directed Study in Elementary Education (1-3). Available to graduate elementary majors. Provides for individual investigation in the area of elementary education. Permission of the instructor required. (F,S,SS)

EDE 5925 Special Topics in Elementary Education (3). Available to undergraduate and graduate elementary majors. Provides opportunities to develop skills and knowledge under the guidance of a specialist in a selected area. Permission of the instructor required. (AR)

EDE 6205 Curriculum Design for Childhood Education (3). Required in masters programs in elementary education. A study of curriculum theory, research, construction and evaluation related to elementary schools. (AR)

EDE 6482 Field Research for Educators (3). The first part of a two semester sequence providing the knowledge and skills necessary for conducting research in schools and classrooms by teachers and administrators; using the results of this research to inform practice. Prerequisite: EDF 5481

EDE 6488 Research in Elementary Education (3). Elective in masters program in elementary education. Required for students in doctoral program. Research in elementary education and the paradigms associated with this research. Prerequisite: EDF 5481. (AR)

EDE 6930 Seminar in Elementary Education (3). Required in masters program in elementary education. Required for students in doctoral program. Advanced study of critical issues and problems in elementary education. Prerequisite: EDE 6488. (AR)

EDE 6971 Thesis in Elementary Education (6). Elective in masters program in elementary education. Design and preparation of an original scholarly investigation in elementary education. Prerequisites: EDF 5481, EDE 6488, and consent of instructor. Corequisite: EDE 6930. (F,S,SS)

EDE 7935 Doctoral Seminar in Elementary Education (3). Required for students in doctoral program. Advanced doctoral study of current theories and research related to elementary education. Prerequisites: EDE 6488 and EDE 6930. (AR)

EDF 5216 Effective Learning in the Classroom (3). A behavioral approach to effective teaching techniques, including theoretical background, behavioral definitions, writing effective objectives, and evaluation of effective learning in the classroom. A field experience will be included. (AR)

EDF 5432 Measurement and Evaluation in Education (3). Competencies required for the design, construction or selection, and evaluation of measuring instruments. Prerequisite: EDF 5481. (F,S,SS)

EDF 5443 Measurement and Evaluation in the Classroom (3). Basic concept in educational

measurement, utilizing measurements in instruction, construction of teacher-made tests and other classroom assessments, portfolio and performance assessment, interpretation of standardized test scores.

EDF 5481 Foundations of Educational Research (3). Competencies required for critical understanding, evaluation, and use of published educational research: Understanding quantitative and qualitative methods; sampling; measurement; data collection and analysis; and inference process. (F,S,SS)

EDF 5517 History of Education in the Changing Social and Philosophical Context of the American Republic (3). This course is an historical examination of formal education in the changing social and philosophical context of the American republic. Special focus is on school/society relationship. (F,SS)

EDF 5820 Latin American Education: An Historic and Contemporary Overview (3). Historical and current development of Latin American education, and analysis of principal forces shaping this development. (AR)

EDF 5821 African Educational Systems: A Comparative Approach (3). Contemporary trends and issues of education in selected independent African countries, with historical analysis of colonial educational policies and practices. (AR)

EDF 5851 Social/Cultural Conflict in Educational Change (3). This course explores radical interpretations of the relationship of education to development in the Third World. Emphasis will be placed on the problem of values conflict and on the use of appropriate educational technologies. (AR)

EDF 5880 Intercultural Education: National and International Perspectives (3). Analysis of concepts and programs of intercultural and international education. Consideration of the role of education in fostering intercultural understanding both nationally and internationally. (F)

EDF 5881 Foundations of Bilingual Education (3). Fundamental theories and models of bilingual education, and information about the historical, philosophical, theoretical and legal background for bilingual multicultural programs in the United States. (AR)

EDF 5905 Directed Study in Education (1-3). The student plans and carries out an independent study project under direction. Topics are to directly relate to content of education courses. Independent study may not substitute for regular course offerings. Prerequisites: Written permission of the chairman of the Division and the approval of the instructor. (F,S,SS)

EDF 5942 Multicultural Seminar and Practicum in Urban Education (3). This course includes effective methods of educating immigrant and other minority children. Prerequisite: Current Florida Teaching Certificate. (AR)

EDF 5955 Field Study Abroad (3-6). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad. (SS)

EDF 6211 Psychological Foundations of Education (3). An intermediate course designed to apply theories and principles of learning and development to teaching and student learning in career areas related to education. Challenges of diversity and teacher effectiveness are emphasized. Prerequisites: EDP 3004 or equivalent. (F,S,SS)

EDF 6212 Research Problems in Educational Psychology (3). Critical analysis of research trends and topics in educational psychology with specific relevance to counseling, school psychology, or special education. Students prepare a prospectus for thesis. (AR)

EDF 6301 Cognitive Psychology in Education (3). Review of psychological research and theory pertaining to cognitive development and processes. Applications to education including cognitive strategy training and enhancement or attention and memory. Prerequisites: EDP 6211 or equivalent. (AR)

EDF 6365 Cultural Identities and Conflict (3). This course provides students with an opportunity to conduct research on the construction of cultural identities. It emphasizes the analysis of the role played by cultural identity symbols in conflict situations.

EDF 6366 Conflict Resolution: Negotiation-Based Perspectives (3). This course introduces students to negotiation-based perspectives on conflict resolution. It provides opportunities to learn problem-solving strategies to move from confrontation to collaboration.

EDF 6367 Interactive Conflict Resolution: A Third-Party Perspective (3). This is an overview of the field of interactive conflict resolution or third-party perspective. It provides opportunities to conduct research and acquire preliminary skill as third-party facilitators.

EDF 6444 Consultation and Assessment with Culturally and Linguistically Diverse Populations (3). Issues in consultation and assessment of individuals with culturally and linguistically diverse backgrounds. (AR)

EDF 6472 Research Methods in Education: Introduction to Data Analysis (3). This course will provide an introduction to the analysis and interpretation of quantitative data in education and the helping professions. Prerequisite: EDF 5481

EDF 6475 Qualitative Foundations of Educational Research (3). Methods and procedures of qualitative research in education: Philosophical issues, conceptualizing research questions, choosing appropriate research designs, collecting data, manual and computerized data analysis, and drawing inferences. Prerequisites: EDF 5481. (AR)

EDF 6476 Advanced Methods of Qualitative Educational Research (3). Advanced design, data collection, and data analysis issues in qualitative research, applied data analysis using text analysis computer programs, making inferences, and effective dissemination of the results. Corequisites: EDF 6481 and EDF 6475.

EDF 6481 Educational Research Methodology (3). This course is designed to provide doctoral students with an in-depth analysis of the methods and procedures of research in education. Topics will include conceptualizing educational research, writing research proposals,

constructing measurement instruments, collecting and analyzing qualitative and quantitative data, and drawing inferences. Prerequisites: EDF 5481 and EDF 6472.

EDF 6486 Advanced Data Analysis in Quantitative Educational Research (3). This is the second of a two-semester in quantitative data analysis. It provides the competencies required for data analysis in complex educational research designs. Prerequisite: EDF 6472 (AR)

EDF 6487 Field Research for Educators (3). The first part of a two semester sequence providing the knowledge and skills necessary for conducting research in schools and classrooms by teachers and administrators; using the results of this research to inform practice. Prerequisite: EDF 5481

EDF 6602 Social and Philosophical Foundation of Education: An Urban Perspective (3). Conceptualization and development of education by development of social analysis and ethical decision making. Prerequisite: Admission to Focus/Masters program. (AR)

EDF 6608 Social, Philosophical and Historical Foundations of Education (3). This course is required of students seeking a regular Masters degree in Education. It will assist students in examining and explaining the differing social context of schooling, the diverse value orientation represented in formal and informal education and the major historical forces shaping schooling in America. (F,S,SS)

EDF 6621 Economic Principles of Education (3). This course covers the linkages between education and the economy. Higher education, corporate interest, and privatization are examined in light of market forces. Emerging trends in the knowledge economy, labor/skill demand also discussed.

EDF 6636 Intercultural Studies: A Qualitative and Quantitative Analysis (3). This course is a study of interrelationship between race, class, gender, ethnicity, and national origin and their influence in learning. Prerequisite: EDF 5481. (AR)

EDF 6651 International Development Education: Educational Technology, Planning, and Assessment (3). This is an introduction to the impact of technology in the delivery and management of education. Emphasis is placed on planning, implementation, and assessment in developing societies. (AR)

EDF 6654 Macro- and Micro-Planning in Education (3). This course is designed to study the theoretical and methodological foundations of educational planning in the U.S. and other countries. (F)

EDF 6658 Selected Topics in International Development Education: Current Policy Issues and Problems (3). This course is dedicated to the study of contemporary problems and issues in the fields of educational policy, planning, management, implementation, and research in developing societies. (AR)

EDF 6689 Urban Education: Defining the Field (3). This course examines the state of urban education and contemporary urban life in America. Prerequisite: Admission to Masters program. (AR)

EDF 6766 Education, the Environment, and Sustainable Futures (3). This course presents an overview of issues in sustainable development, education and the modern school. Efforts will be made to explore the roles that education and culture play in environmental degradation.

EDF 6812 National Educational Systems: A Comparative Analysis (3). Examination of educational structures and guiding educational objectives in a limited number of both developed and developing countries. Analysis of responses of national educational systems to common educational issues. (S)

EDF 6850 International Development Education: Contemporary Planning Models and Techniques (3). This course is designed to explore the relationship between education and the modernization/development process. Special emphasis on historic/contemporary educational planning models and techniques. Prerequisite: EDF 5481. (S)

EDF 6852 Educational Development Issues in Context: A Multidisciplinary Perspective (3). This course is a critical analysis of educational reforms of the past and the present, drawing on social science research and policy issues in the Third World. Prerequisite: EDF 6850. (S)

EDF 6906 Directed Study in International Development Education (3). This course is a specialized intensive study in areas of interest to International Development Education majors. Prerequisite: Approval of program advisor and instructor. (F,S,SS)

EDF 6925 Special Topics in Urban Education (1-5). This is an opportunity for school personnel to develop special competencies in teaching in an urban environment. Prerequisite: Permission of the instructor. (AR)

EDF 6941 Practicum: Urban Elementary/Secondary Schools (3). This course develops the skills of teachers as they engage in the process of action research designed to improve practice, facilities student learning and effect school change. (AR)

EDF 6972 Thesis in International Development Education (3-9). A thesis is required of students in International Development Education which demonstrates the application of their analytical, conceptual, and technical skills to a specific educational development problem. Prerequisite: Final semester standing in the International Development Education Master's degree program. (F,S,SS)

EDF 7215 Application of Learning Theory to Instruction (3). Analysis of selected learning theories and application of these theories to an instructional system. Prerequisite: EDF 6211. (AR)

EDF 7403C Data Analysis in Multivariate Educational Research (3). Design of multivariate research projects in education. This course focuses on applications of multivariate data analysis to educational research using a non-matrix approach. Prerequisite: EDF 6486. (AR)

EDF 7437 Advanced Measurement (3). This course is designed to introduce measurement theory and advanced applications in educational measurement. Prerequisite: EDF 6432.

EDF 7442 Instrument Construction for Research and Evaluation (3). Course covers data collection procedures such as surveys, interviews, observation, content analysis, and performance assessments. Prerequisites: EDF 5481 or equivalent and an introductory measurement course.

EDF 7483 Seminar in Mixed Methodology (3). Utilization of mixed (Qualitative + Quantitative) methods in research, including critical evaluation of worldviews, typology, research questions, data collection/analysis, and meta inferences. Prerequisites: EDF 6475, EDF 6481, and EDF 6486.

EDF 7492 Educational Program Evaluation (3). Design, development and implementation of program evaluation studies in education, interpretation and dissemination of the findings. Prerequisites: EDF 6475, EDF 6481, EDF 6486.

EDF 7493 Transcultural/Transnational Research and Evaluation Methodology (3). This course is an in-depth examination and discussion of the issues, dilemmas, and specific design requirements in conducting transcultural and transnational research and evaluation. Prerequisites: EDF 7492 and EDP 7504.

EDF 7656 International Development Education: Innovative Approaches in Educational Planning (3). Introduction to educational planning approaches which stress decentralization. It focuses on new and innovative perspectives which emphasize strategic aspects of educational planning. (AR)

EDF 7934 Seminar in the Social Foundations of Education (3). This course provides a social and philosophical frame of reference reflecting the society in which education occurs and the resulting implications for the functioning of schools. Prerequisites: M.S. or equivalent and at least one graduate course in history, philosophy or sociology, or equivalent. (AR)

EDF 7937 Advanced Topics in the Social Foundations of Education (3). This course is an in-depth, advanced exploration of a specific area, issue, or practice in relation to the evolving social, philosophical and historical context of American schooling. Prerequisite: Doctoral students only. (F,S,SS)

EDF 7941 Supervised Practicum in Educational Research and Evaluation (3). Completion of research or program evaluation project under the supervision of a faculty member. The product of this practicum is a publishable research report. Prerequisites: EDF 6481 and EDF 6486.

EDG 5049 Public Diplomacy and Education: Engaging the Arab and Muslim World (3). Examination of education and public diplomacy, from different national perspectives, engagement in dialogue about global issues with virtual classmates, and grant proposal writing.

EDG 5325 Analysis of Teaching (3). Examination of the research on instruction in teaching, and the development of skills in the observation and analysis of teacher behavior. (AR)

EDG 5414 Instructional Strategies for the Classroom Teacher (3). This course is specifically designed for the Modified Master's Program in Education. Focus is on generic teaching strategies suitable for teaching in South

Florida. Special emphasis will be placed on the development of competence and knowledge supportive of a reflective practitioner. Prerequisite: Permission of the instructor. Corequisite: EDG 5414L. Field experience required. (F,SS)

EDG 5414L Instructional Strategies Lab (3). Applies basic knowledge and skills necessary for teaching. Required of all in modified masters programs. Corequisite: EDG 5414. (F,SS)

EDG 5417 Learning Styles Applications (3). Designed to help educators use learning styles information to change instruction and improve student achievement. Prerequisite: Tentative admission to Master's program. (AR)

EDG 5707 Cultural and Cross-Cultural Studies (3). This is an overview of immigration patterns in U.S., discussions of theories of ethnicity, acculturation, intercultural communication. Development of teaching strategies for multicultural classrooms. Multicultural issues in elementary, secondary, adult, vocational, and special education will also be addressed. (F,S,SS)

EDG 5941 Practicum: Urban Secondary Schools (3). Developing teacher competencies in urban secondary schools. (AR)

EDG 6250 Curriculum Development (3). Development of basic technical constructs of curriculum. Planning of reality-based educational programs at all levels of schooling. (S,SS)

EDG 6286 Curriculum Evaluation and Improvement in Urban School Systems (3). Development of skills in curriculum evaluation and strategies for improvement of on-going curriculum. (S)

EDG 6608 Multicultural Education: Defining the Field (3). Multicultural education and its impact on teaching and the profession. Prerequisite: Admission to Urban masters program. (AR)

EDG 6627 Seminar: Issues and Trends in Curriculum and Instruction (3). A review of current issues and trends in Curriculum and Instruction. Prerequisite: EDG 6250.

EDG 6693 Problems in Curriculum and Instruction: Elementary (3). Investigation of current problems and solutions to essential curricular and instructional issues in elementary education. Prerequisites: EDE 6205, EDE 6225 or equivalent. (SS)

EDG 6694 Problems in Curriculum and Instruction: Middle School (3). Investigation of current problems and solutions to essential curricular and instructional issues in Middle School education. Prerequisites: ESE 6215 or equivalent. (SS)

EDG 6695 Problems in Curriculum and Instruction: High School (3). Investigation of current problems and solutions to essential curricular and instructional issues in high school education. Prerequisites: ESE 6215 or equivalent. (SS)

EDG 6920 Colloquium in Curriculum and Instruction (1-6). Selected readings, presentations and discussions on topics related to curriculum and instruction. Colloquia considers specific topics related to issues, trends and

applications in the broad field of education. Prerequisite: Masters Degree. (SS)

EDG 6925, 6926, 6927, 6928, 6929 Special Topics in General Professional Education (1-3). Offers an opportunity for school personnel to participate in a problem-oriented workshop in one of the fields of general professional education. (AR)

EDG 6943 Supervised Field Experience (1-5). Students are provided an opportunity to perform supervisory duties appropriate to the students' professional goals. Only advanced graduate students are permitted to enroll. (AR)

EDG 6971 Thesis in Curriculum and Instruction (1-3). An individually supervised research project demonstrating the application of analytical, conceptual and technical skill to a specific curriculum and instruction problem. Prerequisites: EDF 5481 and permission of major advisor.

EDG 7222 Curriculum: Theory and Research (3). Theories of curriculum organization and a survey of curriculum research and historical patterns of curriculum development. Prerequisite: EDG 6250. (F)

EDG 7362 Instruction: Theory and Research (3). Theories of instruction and research in the learning process, creativity, the thought process, human relations and group dynamics and other fields related to the development of instructional theory and practice. Prerequisites: EDG 6250 or Psychology of Learning. (S)

EDG 7391 Seminar in Instructional Leadership (3). Review theories of change and organizational development applicable to education. Discussion of rules and functions of supervisors, curriculum developers and other leaders in the instructional process. Prerequisites: EDS 6115 or EDS 6050. (F)

EDG 7665 Seminar in Curriculum (3). Provides advanced doctoral students the opportunity to participate in a high level seminar focused on identifying the forces which shape curriculum theory and practice. Prerequisite: EDG 7222. (S)

EDG 7667C Advanced Topics in Curriculum Studies (3). Advanced study of current topics and research issues in curriculum studies.

EDG 7692C Politics of Curriculum (3). Advanced study of theories, research, and processes of curriculum decision-making.

EDG 7923C Doctoral Seminar in Curriculum Studies (3). Advanced study of professional development activities and current research topics in Curriculum Studies.

EDG 7938 Doctoral Seminar in Instructional Leadership (3). Advanced doctoral studies in current theories and research related to instructional leadership. Prerequisite: EDG 7391. (F)

EDG 7964 Comprehensive Doctoral Examination (0). Prerequisite: Permission of Major Professor. (F,S,SS)

EDG 7980 Ed.D. Dissertation (1-12). Original contribution to knowledge in major field. Prerequisite: Permission of Major Professor and Doctoral Candidacy. (F,S,SS)

EDG 7985 Dissertation Defense (0). Defense of dissertation. Prerequisites: Permission of Major Professor and EDG 7980. (F,S,SS)

EDH 6045 College Student Development Theory (3). This course is an overview of the most commonly used theories of student development in higher education including the research on which they are based and their application to practice with diverse student populations, issues, and settings.

EDH 6047 College Student Life and Culture (3). This course examines college students in the US from a socio-cultural perspective. Compares student life across historical contexts, various student types, and current issues related to student development.

EDH 6050C Women and Higher Education (3). This course focuses on the history of women in higher education and provides a gender analysis of current higher education issues.

EDH 6051C Leadership in Higher Education (3). This course consists of an analysis and comparison of leadership theories, followership, leadership and management, ethics of leadership, and power and gender issues in higher education.

EDH 6055 Access and Choice in US Higher Education (3). This course examines who goes to college, how they choose, how they pay. Issues include college choice models, types of institutions, equality of access to college, financial aid, rankings, and affirmative action.

EDH 6066 Contemporary Issues in Higher Education (3). Study of contemporary issues confronting higher education. Emphasis is on the identification, definition, and study of issues and how they might be addressed by educational leaders and policy makers.

EDH 6905 Directed Study in Higher Education (1-6). Specialized intensive study in higher education and/or community college is in areas of interest to the student and is subject to approval of program advisor. Prerequisite: Permission of the instructor. (F,S,SS)

EDH 6925 Special Topics in Higher Education/Community College (1-6). This course is an intensive development of selected competencies related to instructional, curricular, staff development and/or administrative skills of special interest to students in higher education and community college. Prerequisite: Permission of the instructor. (F,S,SS)

EDH 6935 Special Topics in Higher Education/Community College (1-6). This course provides for the examination of special aspects of higher education of interest to students in higher education and community college teaching. Prerequisite: Permission of the instructor. (F,S,SS)

EDH 6943 Practicum in Higher Education Administration (3-6). Supervised practice in Higher Education offices/agencies to gain understanding of office/agency functions and role(s) of employees. Prerequisites: Fully admitted and completion of one semester.

EDH 6970 Master's Thesis (1-3). An individually supervised research project demonstrating the application of analytical, conceptual and technical skill to a specific higher education problem. Prerequisites: EDF 5481 and permission of major advisor.

EDH 7052 Student and Support Services (3). This is a comprehensive introduction and overview of student affairs in higher education including history, evaluation and growth, philosophical underpinnings, educational significance, administrative aspects and understanding of individual student service areas. (F)

EDH 7053 Higher Education: Community College (3). This course examines the structure of the community college including: curriculum; administration and legal aspects; the community college concept; technical and career programs and current issues and problems. (S)

EDH 7065 Higher Education: Philosophical/Historical Perspectives (3). This course examines basic philosophical positions in higher education; and the history of American higher education. A contemporary philosophical position is then developed. (F)

EDH 7225 Higher Education: Developmental Programs (3). This course examines the spectrum of developmental programs in higher education. Special attention is given to program structure, academic support systems and curricula designed to increase student achievement. (F)

EDH 7307 Higher Education: Instructional Methods (3). This course will develop knowledge of and skill in the use of higher education instructional methods, such as lecture, discussion, demonstration, TV instruction, and computer assisted instruction. (SS)

EDH 7308 Higher Education: Occupational Programs (3). This is a core course in the doctoral program in higher education: Instruction. It is designed to help students develop an in-depth knowledge of occupational programs in higher education and the students it serves. Prerequisite: Graduate standing. (S)

EDH 7401C Higher Education and Public Policy (3). This course examines the general topic of the relationship between the federal government and higher education is developed. Major attention is given to developments since WWII.

EDH 7402C State Policy and Higher Education (3). The general topic of this course is the relationship developed between the state government and higher education. Major attention is given to developments since WWII.

EDH 7505 Higher Education: Finance (3). This is an intermediate course in Higher Education. Presents the economic and financial issues of Higher Education providing base for administrators and practitioners.

EDH 7964 Comprehensive Doctoral Examination (0). Prerequisite: Permission of Major Professor. (F,S,SS)

EDH 7980 Ed.D. Dissertation (1-12). This course consists of research for doctoral dissertation. Prerequisites: Permission of Major Professor and Doctoral Candidacy. Course may be repeated as needed. (F,S,SS)

EDH 7981 Seminar in Writing the Dissertation (3). Review of research and emphasis on the research process necessary for writing the dissertation. Acquire skill in conducting the major activities of a dissertation. Prerequisite: Candidacy Status. Corequisite: EDH 7980.

EDH 7985 Dissertation Defense (0). This course is the defense of dissertation. Prerequisites: Permission of Major Professor and EDH7980. (F,S,SS)

EDP 5053 Educational Psychology: Principles and Applications (3). Theories, empirical bases and principles of development and individual differences, learning environments, and assessment applied to teaching at all educational levels. Challenges of diversity are emphasized. Required of Modified Masters programs. (SS)

EDP 5219 Classroom Management (3). Provides teachers' understandings, skills, and dispositions for successful classroom management. Prerequisite: EDP 5053. Corequisite: EDG 5414.

EDP 6505 Human Development: Childhood and Adolescence (3). Advanced survey of principles of human development in biopsychosocial terms; in-depth study of infancy, childhood, adolescence, emphasizes applications to broad range of educational processes. Prerequisites: EDP 3004 and DEP 3000 (F)

EDP 6506 Human Development: Across the Life Span (3). Advanced survey of life span human development. Demographic, physiological, sociological factors contributing to optimal functioning through adulthood and aging. Applications to counseling and education. (AR)

EDP 7057 Educational Psychology: Advanced Applications (3). Advanced doctoral level seminar. Reviews and applies educational psychology theories and empirical evidence to educational research, program development and policy making at all educational levels. Prerequisite: College of Education doctorate students. (AR)

EDP 7058 Behavioral Intervention Research and Evaluation in Education (3). Design and analysis of observational and behavioral studies in education. Includes single subject research studies, structured observation systems, and behavioral interventions. Prerequisite: EDF 5481. (S)

EDP 7214 Psychological Problem Solving in Education (3). Discussion of psychological problem solving literature and development of problem solving tasks grounded in the educational psychology literature. Prerequisite: EDP 6301.

EDP 7265 Supervised Teaching of Educational Psychology (3). Independent teaching of an educational psychology or educational research and evaluation course under the supervision of assigned faculty member(s). Prerequisites: Doctoral candidacy in the related area. Course may be repeated as needed.

EDP 7504 Educational Psychology in Cross-Cultural Contexts (3). Discussion of empirical and theoretical cross-cultural research in intelligence, problem solving, and language that impact teaching, learning, and achievement in the US and around the world. Prerequisite: EDP 7057

EDP 7980 Education Doctoral Dissertation (1-12). Research for doctoral dissertation students approved for candidacy in Educational Research and Measurement and in Educational Psychology. Prerequisite: Advancement to candidacy in doctoral program.

EDS 5051 Supervision and Professional Laboratory Experience (3). The content of this course includes performance standards at the preservice teacher preparation level, Clinical Educator training, mentoring,

and classroom strategies that result in improved student performance.

EDS 6050 Supervision and Staff Development (3). This course consists of the study of competencies in supervision and staff development.

EDS 6115 School Personnel Administration (3). This course provides the knowledge and skills essential for exercising effective leadership in school personnel recruitment, selection, orientation, assessment, and professional development. (S)

EEC 5906 Directed Study in Early Childhood Education (1-3). Available to undergraduate and graduate students studying early childhood education. Provides for individual investigation in the area of early childhood education. Permission of the instructor required.

EEC 5926 Special Topics in Early Childhood Education (3). Available to undergraduate and graduate students studying early childhood education. Provides opportunities to develop skills and knowledge under the guidance of a specialist in a selected area. Permission of the instructor required.

EEC 6261 Education Programs for Younger Children (3). Required in masters program in early childhood education. Programs developed for young children; curriculum trends based on contemporary psychological, educational, and sociological research.

EEC 6455 Programming for Young Handicapped Children: Birth to Five Years (3). Acquaint students with developmentally appropriate curricula, methods, materials, intervention strategies, and teaming approaches for infants, toddlers, preschool, handicapped, and at risk children. Prerequisites: EEX 6017; EEX 3010 or EEX 6051 recommended.

EEC 6678 Research in Early Childhood Education (3). Elective in masters program in early childhood education. Required for students in doctoral program. Research in early childhood education and the paradigms associated with this research. Prerequisite: EDF 5481.

EEC 6705 Typical and Atypical Child Development: Birth to Five Years (3). Explore research on normal and atypical child development from birth to five years in physical, intellectual, social, and emotional domains. Field observation required. Prerequisites: none; EEX 3010 or EEX 6051 recommended.

EEC 6932 Seminar in Early Childhood Education (3). Elective in masters program in early childhood education. Required for students in doctoral program. Advanced study of critical issues and problems in preschool and early childhood education. Prerequisite: EEC 6678.

EEC 6948 Supervised Experience in Early Childhood Education (3-9). Available to graduate early childhood education majors. Provides field work in educational institutions and organizations involved in childcare and early childhood education. Prerequisite: Permission of the instructor.

EEC 6971 Thesis in Early Childhood Education (6). Design and preparation of an original scholarly investigation in early childhood education. Prerequisites:

EDF 5481, EEC 6678, and consent of instructor. Corequisite: EEC 6932.

EEC 7932 Doctoral Seminar in Early Childhood Education (3). Required for students in doctoral program. Advanced doctoral study of current theories and research related to early childhood education. Topics may vary and may include: social, cognitive, affective and language development. Prerequisites: EEC 6678, EEC 6932. (AR)

EEX 5060 Nature and Needs of Students with Mild Disabilities (3). Curriculum models, approaches and significant concepts and skills needed for educational planning and programming for students with mild disabilities. Prerequisites: EEX 5481, EEX 6912. (S)

EEX 5068 Instructional Practice in Exceptional Student Education I (3). This course includes the theoretical basis and principles of appropriate instructional practices and techniques for students with mild disabilities, IEP planning, and curriculum development. Prerequisites: EEX 6051, EEX 6227, EEX 6106.

EEX 5069 Instructional Practices in Exceptional Student Education II (3). This course includes the principles of effective instructional practices and strategies for students with mild disabilities, and requires implementation of these strategies in the field. Prerequisites: EEX 6051, EEX 6227, EEX 6106, EEX 5068.

EEX 5075 Teaching Students with Exceptionalities in Inclusive Settings (3). This course focuses on the foundation of inclusive education, characteristics of students with disabilities, instructional strategies, and collaboration among educators and parents.

EEX 5095 Nature and Needs of Students with Autism Spectrum Disorders (3). Students will develop knowledge and skills related to the nature and needs of students with autism including characteristics, learning goals, teaching approaches, and environmental arrangements.

EEX 5210 Assessment and Strategies for Students with Autism Spectrum Disorders (3). Students will become familiar with current formal and informal assessments used in diagnosis and instructional planning. Students will also become familiar with specific educational strategies for students with autism spectrum disorders.

EEX 5259 Literacy in Special Education (3). Provides teachers with knowledge of specific developmental, remedial reading and language arts strategies, assessment and implementation models that can be used for students with exceptionalities.

EEX 5282 Introduction to Audiology and Auditory Training for Students Who are Deaf and Hard of Hearing (3). The purpose of this course is to provide the opportunity to study the physical dimensions of sound, the psychoacoustic aspects of sound, and the relationship between these. The etiologies, characteristics, and the diagnostic evaluation, treatment and rehabilitation associated will be discussed. Prerequisites: EHD 5110 and EHD 5344.

EEX 5608 Behavioral Approaches to Learning and Classroom Management (3). Application of behavioral principles to children and youth in educational and

community settings. Required for special education modified masters' and out-of-field certification majors. Prerequisite: EEX 6051.

EEX 5619 Behavioral Management and Positive Behavioral Supports for Students with Autism Spectrum Disorders (3). Students will develop and implement positive behavior plans and design behavior management techniques for students with Autism Spectrum Disorders.

EEX 5755 Working with Families and Communities of Young Children with Disabilities (3). This course includes strategies for effective communication and collaboration with families of young children with disabilities and related agencies.

EEX 5766 Instructional and Assistive Technology in Special Education (3). Provides teachers of students with disabilities instructional and assistive technology skills that enhance student learning and increase access to the general education curriculum. Prerequisite: EEX 6051.

EEX 5767 Assistive and Instructional Technology and Alternate/Augmentative Systems for Students with Autism (3). Students will develop skills in strategies used in integrating instructional and assistive technology in the classroom for students with autism and the use of appropriate AAC systems.

EEX 5771 Personal Foundations and Transitional Services for Individuals with Disabilities (3). Explores personal living skills, employability and transitional skills for adulthood in relation to persons with mental, sensory and physical disabilities. (SS)

EEX 5841 Graduate Practicum in Special Education (1). The Graduate Practicum in Special Education provides opportunities for intensive and integrated teaching experiences in the classroom under the close supervision of master teachers and university supervisors. Prerequisites: Completion of professional studies and core courses. Corequisites: EED 5225, ELD 5235, EMR 5215.

EEX 6019 Autism (3). Presents the nature of autism, personal characteristics, patterns of development, and assessment and intervention strategies. Requires field activity. (AR)

EEX 6017 Typical and Atypical Child Development: Birth to Five Years (3). Explore research on normal and atypical child development from birth to five years in physical, intellectual, social, and emotional domains. Field observation required. Prerequisites: EEX 3010 or EEX 6051. (F)

EEX 6051 Education of Students with Exceptionalities (3). Significant concepts in relation to the educational needs of students with exceptionalities. (AR)

EEX 6065 Educational Programs for Secondary Level Students with Exceptionalities (3). Considers philosophies and models of secondary programs for students with mild disabilities. Emphasis is given to instructional methods in skills and content areas and identification of transition resources. Prerequisites: MAE 6336, RED 6336. (AR)

EEX 6072 Inclusion of Students with Exceptionalities (3). Awareness of issues underlying the movement to

include students with disabilities in general education settings. Techniques and procedures for effective mainstreaming of these students. (SS)

EEX 6106 Acquisition of Speech and Language Skills (3). Development of normal speech and language, and knowledge of speech and language delays and disorders. (S)

EEX 6203 Psychological/Sociological Aspects of Disability (3). Psychological/sociological aspects of disability in relation to socio/political forces, attitudes, and behaviors that impede or facilitate the options of individuals with disabilities in schools and communities. (AR)

EEX 6208 Medical Aspects of Disability (3). Medical etiology and remediation of disability. Includes genetic, biochemical, nutritional, and physical agents in mental retardation, learning disability, and emotional handicaps. Prerequisites: EEX 3202 or equivalent. (F)

EEX 6211 Assessment of Learning and Behavior (3). Presents a model for assessing the skills and abilities of students with exceptionalities. Emphasis is on administration, scoring and interpretation of a variety of standardized tests, and communication of results in written reports and oral staffings. Prerequisites: EEX 3221 or EEX 6227 or equivalent. Lab fee required. (AR)

EEX 6213 Assessment and Interventions for Young Children with Disabilities (3). Presents an ecological approach to assessment of young children. Formal/Informal assessment including naturalistic observations and the development of an IFSP and IEP required. Prerequisites: EEX 6017, EEX 3012 or EEX 6051. Corequisite: EEX 6455. Lab fee required. (S)

EEX 6225 Educational Assessment of Students with Exceptionalities (3). Presents a model for assessing the academic skills of students with exceptionalities. Emphasis is on use of standardized tests and development of curriculum-based assessments. Lab fee required. (F,SS)

EEX 6228 Integration of Curriculum, Assessment and Instruction (3). This course constitutes the culminating experience in the Masters Program by establishing the link between curriculum, assessment, and instruction. Prerequisite: Completion of required Masters course work. (S)

EEX 6236 Characteristics of Individuals with Severe Disabilities (3). Characteristics of individuals with physically impaired, health impaired, and profound communication disorders and behavior disorders, including autism. Medical etiology, assessment techniques, program planning for student and family. Prerequisite: Graduate level status. (AR)

EEX 6256 Ecological Intervention Strategies for Students with Severe Emotional Disabilities (3). Designed to have the graduate student apply an ecological framework in addition to educational principles to children and youth with behavior disorders. Prerequisite: EBD 6226. (S)

EEX 6417 Guidance and Counseling of Gifted Students (3). Affective development, parental involvement, counseling theories, underachieving gifted. (SS)

EEX 6455 Programming for Young Children with Disabilities (3). Acquaint students with developmentally appropriate curricula, methods, materials, intervention strategies, and teaming approaches for infants, toddlers, preschool age children with disabilities as well as children at risk. Prerequisites: EEX 6017, EEX 3010 or EEX 6051. Corequisite: EEX 6213. (S)

EEX 6535 Seminar in Special Ed.: Supervision and Leadership (3). Problems in school administration and pattern of curriculum organization as they relate to people with disabilities. Focus on conceptual framework, change factors and future trends in special education. (F)

EEX 6765 Instructional Technology for Special Education (3). Provides teachers of students with special needs current knowledge in instructional technology, appropriate to enhance student learning. (F,S,SS)

EEX 6848 Seminar in Special Education: Issues and Trends (3). A forum to discuss, analyze, and evaluate current issues and trends in special education. Individual issues and trends will be planned and executed by students. (F)

EEX 6862 Student Teaching (6). Culminating field experience in a program for students with Exceptionalities, demonstrating competencies learned throughout the program. Prerequisite: successful completion of all program requirements. (F,S)

EEX 6863 Supervised Field Experience in Special Education (3-9). Demonstration in a field site of the full range of competencies in diagnostic teaching learned throughout the program. Placements include a variety of field settings. (F,S,SS)

EEX 6906 Directed Study in Special Education (1-6). Concepts or competencies contracted for by graduate students with a faculty member. (F,S,SS)

EEX 6912 Advanced Theory and Research in Special Education (3). Required by graduate students in the Masters or Doctoral programs. Investigation of advanced work in social and psychological research applied to persons with handicaps, mental retardation, learning disabilities, and emotional disturbances. Prerequisites: Certificate in Special Education and/or competence in Special Education. (S,SS)

EEX 6927 Special Topics in Special Education (1-6). Selected competencies in special education, developed in short-term, intensive workshops. (F,S,SS)

EEX 6971 Thesis in Special Education (3). Elective in Masters Program in special education. Design and implementation of original scholarly investigation in special education. Prerequisites: EEX 6912, EDF 5481, consent of instructor. (AR)

EEX 7795 Advanced Issues in the Education of Culturally and Linguistically Diverse Students with Exceptionalities (3). The course will focus on highly effective educators, minority students in special education, critical issues such as inclusion and assessment, and teacher preparation and support in urban districts.

EEX 7930 Professional Seminar in Special Education (1). Required 6 semester seminar for new and continuing doctoral students in leadership and professional

development issues facing doctoral professionals. Prerequisite: Doctoral standing. (F,S,SS)

EEX 7933 Advanced Topics in Special Education (3). In-depth study and analysis of topics affecting special education practice. Course can be repeated for credit. Prerequisite: Admission to doctoral program in ESE.

EEX 7937 Dissertation Seminar in Special Education (3, repeatable to 9). Designed to take doctoral students through the steps of completing a dissertation. Requires identification and development of a research problem. Prerequisites: Completion of special education core and research and statistics component. (F,S,SS)

EEX 7977 Candidacy Research and Evaluation in Educational Psychology and Special Education (3). Research activities required for Doctoral students in special education prior to candidacy and dissertation. Serves as a bridge between courses and the comprehensive examination. Prerequisite: Doctoral standing. (F,S,SS)

EEX 7980 Ed.D. Dissertation (1-12). Original contribution to knowledge in major field. Prerequisites: Permission of Major Professor and Doctoral Candidacy. (F,S,SS)

EGI 5051 Nature and Needs of the Gifted (3). Identification and placement procedures, history of the field, and psychological factors affecting development of the gifted-talented. (F)

EGI 5232 Educational Procedures and Curriculum for Gifted (3). Basic curriculum models in education of the gifted. Relation of models to planning, implementation in traditional classrooms, resource rooms, and special classes. (S)

EGI 6305 Theory and Development in Creativity for Gifted (3). Required for graduate students seeking endorsement in Gifted Education. Knowledge and practice in theory and process of creative thinking and production of creative work. Prerequisite: Graduate level only. (F)

EGI 6405 Special Gifted Populations (3). Required for graduate students seeking endorsement in Gifted Education. Knowledge and theory in cultural, psychological, and educational principles applied to gifted minorities, including the handicapped. Prerequisite: Graduate level only. (SS)

EHD 5110 Nature and Needs of Students Who are Deaf and Hard of Hearing (3). Identification and placement procedures, history of the field, and psychological factors affecting the development of students who are deaf and hard of hearing.

EHD 5246 Teaching Reading to Students Who are Deaf and Hard of Hearing (3). Knowledge and skills in teaching reading to students who are deaf or hard of hearing. Techniques and strategies in the primary grades, intermediate grades and content areas will be discussed as well as the exploration, creation and evaluation of basic reading materials. Prerequisites: EHD 5110 and EHD 5247.

EHD 5247 Teaching Language and Speech to Students Who are Deaf and Hard of Hearing (3). Historic approaches and current methods for teaching language and speech; knowledge of language and speech

structures and principles needed by students who are deaf and hard of hearing; and an understanding of the development of language and speech in students who are deaf. Prerequisite: EHD 5110.

EHD 5341 Curriculum and Instruction of Students Who are Deaf and Hard of Hearing (3). Students will learn techniques for teaching learners who are deaf or hard of hearing including adaptations for instruction in content areas, multicultural instruction, development and implementation of IEPs. Prerequisites: EHD 5110, EHD 5247, and EHD 5402.

EHD 5344 Anatomy and Physiology for Teachers of Students Who are Deaf and Hard of Hearing (3). Exploration and study of the anatomy and physiology of all aspects of communication process. These aspects include the respiratory, phonatory, articulatory, acoustic, auditory, and neurologic systems. Prerequisite: EHD 5110.

EIA 5811 Equipment and Facilities Planning (3). Utilization of research, design, and technical knowledge and skill to plan and update technology education laboratory facilities and equipment. Prerequisite: Graduate standing. (F,S,SS)

EIA 5905 Directed Study in Technology Education (1-3). Identification, research, and reporting on problems of interest to the student in technology education. Subject to approval of program advisor. (F,S,SS)

EIA 5925L Special Topics in Technology Education (3). Selected topics related to instructional and technical areas. (F,S)

EIA 6683 Instructional Projects Development in Technology Education (3). Knowledge and skill in developing new and innovative instructional projects for use in technology education programs, grades 6-12. (F,S,SS)

EIA 6931 Analysis of Technology Education (3). Knowledge of trends, issues, problems in technology education at the national, state, and local levels. (F,S,SS)

ELD 5235 Strategies in Teaching Students with Learning Disabilities (3). Instructional strategies and approaches for teaching students with learning disabilities. Extensive field work is required. Prerequisites: EDG 5414 and Lab, EEX 6051, EEX 6227, EEX 5608. (AR)

ELD 6323 Advanced Theory and Practice: Specific Learning Disabilities (3). Major concepts in the area of specific learning disability, and skills in the application of these concepts to education. (S,SS)

EME 5315 Instructional Media (3). Development of competencies for effective selection and utilization of instructional media. Consideration of sources, selection, evaluation, and methods of implementing media. (AR)

EME 5403 Introduction to Instructional Delivery Systems (3). A study of the rapidly expanding electronic media technology and its impact on instructional delivery. Prerequisites: EME 3402 or EME 6405. (AR)

EME 5602 Multimedia in the Classroom (3). Use videodisc and compact disc formats; hypermedia; high resolution still images and graphics; audio-program material and text to improve the quality of teaching and student learning. Prerequisites: EME 3402, EME 6405, or

equivalent. Corequisite: Basic knowledge of McIntosh environment. (AR)

EME 5623 Digital Video in the Classroom (3). Hands-on digital video techniques and practices for integration into classroom applications. Designed for teachers who wish to use digital video in classroom settings.

EME 5945 Special Topics in Computer Education (1-3). Offers an opportunity for teachers and trainers to participate in activities using specific computer applications. (AR)

EME 6405 Computers in the Classrooms (3). Learning to use microcomputers in a school setting. Emphasis on evaluating and documenting software; creation of classroom materials leading to development of useful software. (F,SS)

EME 6407C Instructional Programming for Teachers (3). An introductory course for teachers to use BASIC to write educational programs appropriate to the teacher's area of specialization. Prerequisites: EME 3402 or EME 6405 or permission of the instructor. (AR)

EME 6408 Microcomputers as Teaching Tools (3). This course develops ability to use the microcomputer as an object, medium, and manager of instruction in the classroom. Prerequisites: EME 6405 or EME 3402 or permission of the instructor. (F,S)

EME 6412 Educational Courseware Evaluation and Development (3). This course develops ability to select, evaluate, design, and utilize appropriate software for the school curriculum. Prerequisites: EME 6405 or EME 3402 and one computer language or permission of the instructor. (AR)

EME 6433 Learning Technologies in Science Education (3). Application of learning theories and research to learning technologies in science education. Development, testing and evaluation of curriculum materials.

EME 6507 Advanced Interactive Multimedia (3). Research on the use of text, color, sound, graphics and animation in multimedia presentations. Apply theory and research to design, develop, and evaluate educational multimedia materials using advanced technological tools and distribute them in different formats. Prerequisites: EME 6405, EME 5602.

EME 6628 Administrative and Instructional Applications of Technology (3). Topics of this course include data management, instructional management, teleconferencing, scheduling, and productivity software for educational leaders and school managers. (AR)

EME 6905 Directed Study: Computer Education (1-3). The course provides an opportunity for the student to plan and carry out an independent study project under direction. Prerequisite: Permission of the instructor. (F,S,SS)

EME 7457 Teaching and Learning at a Distance (3). The course will cover distance education technologies, history and research, needs of learners, design, development, and evaluation, intellectual property rights, assessing students at a distance. Prerequisites: Admission into doctoral program, permission of instructor.

EME 7936 Special Topics in Learning Technologies (3). Special topics in the area of learning technologies will be addressed in this course. Topics will vary from semester to semester. Prerequisites: Admission into doctoral program, permission of instructor.

EME 7938 Advanced Seminar in Learning Technologies (3). Important emerging topics, issues, problems, and trends in the area learning technologies will be covered in this course. Prerequisites: Admission into doctoral program, permission of instructor.

EMR 5215 Strategies for Teaching Students with Mental Retardation (3). Familiarizes students with instructional strategies and specialized approaches for teaching students with mental retardation. Requires extensive field work. Prerequisites: EDG 5414, EDG 5414L, EEX 6051 and EEX 5608. (AR)

EMR 6012 Advanced Theory and Practice: Mental Retardation (3). Major concepts in the area of mental retardation and skills in the application of these concepts to education. (S,SS)

ESE 5344C Secondary Classroom Management (3). Provides students with the theoretical and practical approaches for dealing with the problems of classroom management within the goals, materials, and teaching strategies that form secondary classrooms.

ESE 6215 Secondary School Curriculum (3). Examination of programs, trends, and developments in curriculum and instruction in the secondary school. Consideration and evaluation of innovations. (AR)

EVT 5078 Technical Education in American Society (3). This course will provide students with knowledge of the basic role and current status of technical education in an industrial democracy. It is designed for students interested in post-secondary education. (S)

EVT 5168 Curriculum Development in Vocational Education (3). This course provides students with knowledge and skill in analyzing, planning, and developing curriculum in an area of specialization. (S)

EVT 5255 Cooperative Vocational Education Programs (3). This course will provide students with knowledge and skill in the basic philosophy, principles, processes, and procedures of the cooperative method in vocational and technical education. (F)

EVT 5265 Supervision and Coordination of Vocational Education Programs (3). This course provides students with knowledge and skill in the supervision of personnel and the coordination of work to achieve institutional goals. (F)

EVT 5315 Improvement of Teaching Strategies in Health Occupations and Nursing Education (3). This course is the first in series of graduate courses designed to prepare qualified health professionals holding bachelor's degrees with professional education skills necessary to become competent teachers. It is approved for "special methods of teaching health occupations education." (AR)

EVT 5317 Occupational Analyses in Health Occupations and Nursing Education (3). This course provides opportunity to expand/update the knowledge base of health care system combining experiences in

health care delivery system with curriculum updating. Professional licensure and liability insurance required. May be repeated. (AR)

EVT 5369 Vocational Educational Media (3). This course provides students with knowledge and skill in selecting, developing, and utilizing vocational instructional media forms to communicate or demonstrate concepts. (S)

EVT 5650 Trends and Issues in Vocational Education (3). This course provides students with knowledge of the basic philosophical and curricular trends and issues in vocational technical education at the international, national, state, and local levels. (F)

EVT 5664 Community Relations and Resources for Vocational Education (3). This course provides students with knowledge and skill in utilizing community resources and establishing public relations procedures and practices to implement vocational education programs. (SS)

EVT 5695 International Comparative Vocational Education (3). This course provides students with knowledge in comparison of vocational education in the United States in terms of purposes, systems, and problems with those of selected foreign countries. (S)

EVT 5769 Evaluation in Vocational and Technical Education (3). This course provides students with knowledge and skill in the development of criteria, tests, measurements, and analysis of data to assess teaching, learning, and objectives. (F)

EVT 5905 Directed Study in Vocational/Technical Education (1-3). This course includes identification, research, and reporting on a special problem of interest to the student. Subject to approval of program advisor. (F,S,SS)

EVT 5925 Special Topics in Vocational Education (1-6). This course includes selected competencies related to instructional and technical areas. (AR)

EVT 5927 Special Topics in Health Occupations Education (1-3). This course includes selected topics related to instructional and technical areas. (AR)

EVT 6157 Theory of Work and Careers in Vocational and Technical Education (3). This course provides students with knowledge of concepts and principles of work, careers, and technology and related individual, social, and economic benefits with implications for vocational and technical education. Prerequisite: Graduate standing. (F)

EVT 6264 Administration of Vocational Education Programs (3). This course provides students with knowledge of the principles, practices, functions, and roles of administration in the operation of vocational education programs. (S)

EVT 6318 Current Issues in Health Occupations and Nursing Education (3). This course is designed to focus qualified health professionals holding a bachelor's degree with professional education skills necessary to identify and conduct research on current issues related to teaching in health occupations education. (AR)

EVT 6359 Vocational Education in a Multicultural Setting (3). This course provides students with knowledge and skill in developing and modifying vocational education

programs, materials, and practices for a multicultural setting. (SS)

EVT 6760 Research in Vocational Education (3). This course provides students with knowledge and skill in identifying, defining, collecting, analyzing, and synthesizing research-related problems in vocational and adult education. (S)

EVT 6925 Special Topics in Vocational Education (1-6). This course consists of selected topics related to professional and program areas. (AR)

EVT 6930 Seminar in Vocational Education (3). This course includes discussion of special instructional, curricular and/or administrative and supervisory problems and issues in vocational education. Prerequisite: Graduate standing. (F)

EVT 6946 Supervised Field Experience (3-6). This course is an application and refinement of competencies in either classroom, laboratory, or administration and supervision, via school-based field experiences. Placement is subject to approval of program leader. (AR)

EVT 6947 Internship in Vocational Education (3). This course provides students with knowledge and skill in a new leadership setting, relative to the student's selected area of emphasis. (AR)

EVT 7964 Comprehensive Doctoral Examination, Vocational and Technical Education Leadership (0). This is the Comprehensive Doctoral Examination in Vocational and Technical Education Leadership. Prerequisite: Permission of major professor. (F,S,SS)

EVT 7980 Ed.D. Dissertation (1-12). This course consists of research for doctoral dissertation for those students approved for candidacy in the Vocational and Technical Education Leadership Program. Prerequisites: Permission of Major Professor and Doctoral Candidacy. (F,S,SS)

EVT 7985 Dissertation Defense (0). This is the defense of Dissertation. Prerequisites: Permission of major professor and EVT 7980. (F,S,SS)

FAD 5260 Family Development (3). Dynamics of family interaction and structure, including analysis of socioeconomic and cultural influences, crisis-producing situations, and current issues and trends affecting the family unit. (AR)

FAD 5341 Family Development: Adulthood and Aging (3). Extension of the study of developmental patterns with emphasis on physical, intellectual, social, and emotional influences with particular emphasis on the family and/or family substitute. Graduate students will have additional requirements. (AR)

FAD 5450 Human Sexuality (3). Provides a cognitive overview of human sexuality. Main emphasis is on the affective dimension—an exploration of attitudes and values related to sexuality. (AR)

FLE 5895 Bilingual Education Teaching Methodologies (3). Examination of various approaches to bilingual education, including specific school and classroom organizations. Development of specific instructional strategies for bilingual students. Issues in elementary, secondary, adult, vocational, and special education will also be addressed. (F)

FLE 5908 Directed Study in Foreign Language Education (1-3) (ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (F,S,SS)

FLE 5945 Supervised Teaching: Modern Languages (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Modified Master's Track Program and completion of prerequisite course work in education and subject matter area. (F,S)

FLE 6336 Methods of Teaching Modern Language (3). A modern study of language learning and teaching from the theoretical and practical points of view, including the evaluation and development of techniques and materials for second language teaching. Prerequisites: LIN 3010 or ENG 3500 or equivalent. (F,S)

FLE 6925 Special Topics in Second Language Education (1-3) (ARR). Production and application of materials and techniques in second language education in a laboratory or field setting. (S)

FLE 6938 Seminar in Second Language Testing (3). Advanced study and research on current topics and issues in the field of second language education. Variety of topics to include language testing. Language proficiency, language and society, bilingual-bicultural education, and error analysis and the language learner. (S,SS)

HEE 5335 Trends and Issues in Home Economics Education (3). This course is an analysis of current social, economic, and educational trends and issues impacting upon home economics education and their implications for current and evolving practices. (F)

HEE 5360 Teaching Child Development (3). This course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5361 Teaching Consumer Education and Family Economics (3). This course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5362 Teaching Clothing and Textiles (3). This course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5363 Teaching Family Life Education (3). This course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5364 Teaching Housing and Home Furnishings (3). This course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5365 Teaching Food and Nutrition (3). This course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5905 Directed Study in Home Economics Education (1-3). This course is designed for advanced students in home economics education who wish to

pursue specialized topics. Requires prior approval of instructor. (F,S)

HEE 5927 Special Topics in Home Economics Education (1-3). This course includes the development, organization, instruction, evaluation, and administration of programs related to selected aspects of home economics education. (S)

HEE 6156 Teaching Home Economics in Diverse Environments (3). This course consists of utilization of current educational developments, evolving strategies, materials, and resources to teach and evaluate home economics programs in diverse settings. (S)

HEE 6915 Research in Home Economics Education (3). This course is an analysis and application of research pertaining to philosophy, curriculum, evaluation, and teacher education in home economics. Subject to approval of program advisor. (F)

HEE 6928 Special Topics in Home Economics Education (1-3). This course includes the development, organization, instruction, evaluation, and administration of programs related to selected aspects of home economics education. (F,S)

HEE 6937 Seminar in Home Economics Education (3). This course is an application of selected instructional, curricular, and/or administrative principles and practices to the solution of problems of special interest to home economics educators. Subject to approval of program advisor. (S,AR)

HES 5319 Teaching Health Education (4). Students will select various modern techniques and tools for teaching health education in elementary and secondary school settings. (AR)

HME 5225 Problems of Home Management in Contemporary Society (3). This course is the study of influence of diversified cultural impact on management life styles, with emphasis on problems of management resources. Discussion of problems related to single-parent homes, retirement, poverty, death, working parents, migrant families, and other human situations. Prerequisites: COA 2410, HME 4230, or permission of the instructor. (AR)

HME 5255 Independent Living for the Handicapped (3). This course explores the home and personal living skills required to empower persons with mental and physical limitations to achieve their maximum independence. Suitable for students in special education, health, physical education, recreation, social work, home economics or anyone planning to work with elderly or handicapped. Approved for certification for teachers of the mentally retarded. (AR)

HSC 5455 Basic Driver Education (3). Content includes knowledge of the highway transportation system, rules and regulations. For Driver Education Certification endorsement. (AR)

HSC 5456 Advanced Driver Education (3). Content includes advanced skills for the teaching of driver's education. Prerequisite: HSC 5455. (AR)

HSC 5465 Administration and Supervision of Driver Safety Education (3). Content includes competencies for

teacher preparation and improvement in driver and traffic safety education. Prerequisites: HSC 5455 and HSC 5456. (AR)

LAE 5336C Special Teaching Lab – English (3). Development of Instructional Skills, Techniques, and Strategies for Teaching English in the Middle and Senior High School. Prerequisite: EDG 5414.

LAE 5355 Literacy Instruction in the Intermediate Grades (3). Provides understandings, skills, and dispositions needed to teach reading and writing to students who have advanced beyond beginning stages. Required for students in VE Modified Masters Program. Prerequisites: RED 5152 or equivalent. Corequisite: EEX 4940.

LAE 5415 Children's Literature (3). Required in Early Childhood, Elementary and Reading Education Master's Programs. Provides knowledge and skill in critical analysis of purposes, strategies for teaching and evaluation of children's literature.

LAE 5426 Multicultural Perspectives in Teaching Language and Literature for Young Adolescents (3). This course is designed to provide students with a theoretical and practical basis for teaching and reading multicultural literature in the secondary school. Prerequisite: Admission into the program. (AR)

LAE 5465 Adolescent Literature in Middle/Secondary Schools (3). This course examines a wide variety of adolescent and young adult literature. Assists students in the development of instructional strategies for organizing literary experiences among young learners. Prerequisite: Admission into program. (AR)

LAE 5908 Directed Study in English Education (1-3) (ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (AR)

LAE 5927 Special Topics in Language Arts (3). Available to undergraduate and graduate education majors. Provides opportunities to develop skills and knowledge of reading/language arts instruction. Permission of the instructor required. (AR)

LAE 5945 Supervised Teaching: English Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and subject matter area. (S)

LAE 6305 Instruction in Early Childhood Language Arts (3). Required in Master's program in Early Childhood Education. Refines skills related to program development, methods of teaching, selection of materials, and review of research in preschool, kindergarten and primary grades. Prerequisites: LAE 4314 or permission of the instructor. (AR)

LAE 6319 Instruction in Integrated Language Arts (3). Elective in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research in elementary education. Prerequisites: LAE 4314 or permission of the instructor. (AR)

LAE 6339 Teaching English in the Secondary School (3). Analysis of methods, programs, and materials for teaching English in the middle school and senior high school, and development of teaching skills. Prerequisite: Undergraduate course in methods of teaching English. (S)

LAE 6815 Computers in English and the Language Arts (3). Covers the basics needed to integrate computers in teaching language arts. Emphasizes selecting and learning to use software to meet objectives in language, literature, and composition. Corequisites: English major or equivalent. (AR)

LAE 6925-26 Special Topics in English Education (1-3). Production and application of materials and techniques in English education in a laboratory or field setting. (AR)

LAE 6935 Seminar in English Education (3). Designed for advanced students, the readings and discussions will focus on policy issues and recent research in English education. Though primarily for experienced English teachers and supervisors, the course is open to administrators and others, with the consent of the instructor. (F)

LAE 7938 Doctoral Seminar in English Education (3). Advanced doctoral study of current theories and research related to English education. Prerequisites: LAE 6935, EDF 6486. (AR)

LBS 5155 Workplace Diversity (3). Students examine theoretical debates surrounding workforce participation of women and minorities; historical position of these groups in labor force; social phenomena that contribute to discriminatory practices and development of policies to eliminate discriminatory practices.

LBS 5215 Women in the United States Workplace (3). Students explore women's changing role in U.S. workplace and development of workers' organizations from Colonial era to modern day. Special attention given to role of class, race, and ethnicity within context of gender.

LBS 5406 Collective Bargaining and Labor Relations (3). This course is a comprehensive study of major issues and themes in American collective bargaining. Includes origins of collective bargaining, labor law, unionization, contract negotiations patterns in contract content, impact of external laws, public sector unions, grievance arbitration and interest arbitration.

LBS 5464 Labor Arbitration (3). This course consists of the study of labor dispute resolution with emphasis on grievances, fact-finding, and arbitration.

LBS 5465 Introduction to Mediation (3). This course examines the role of mediation in resolving civil, commercial, family, public and workshop disputes. Incorporates mediation principles and skills, different approaches to mediation, and current research in mediation.

LBS 5466 Family Mediation (3). This course provides a comprehensive understanding of conflict resolution, power and balances, emotional and psychological issues, negotiation techniques as well as the development of practical skills in the field of family mediation.

LBS 5467 Civil Mediation (3). This course is a comprehensive understanding of the field of civil mediation

as well as the development of the practical skills to be a civil mediator.

LBS 5485 Fundamentals of Conflict Resolution (3). This course is a survey of the major contemporary theories of organizational functioning and the management of conflict within and among organizations in a globalized world. Theories that center primarily within the fields of dispute resolution, sociology, and social interaction/group theory will be emphasized.

LBS 5486 The Dynamics of Conflict Management (3). Investigate conflict and violence, and help students to develop strategies to defuse them in the classroom.

LBS 5507 Labor and Employment Law (3). This course familiarizes the student with the legal issues and rules regarding unionization of employees, the collective bargaining process, the relationship between the employee and his/her union, and the administration of collective bargaining agreements. Examines the legal framework within which collective bargaining occurs and also familiarizes students with additional issues of rights in employment.

LBS 5658 Labor Movements and Economic Development (3). This course examines relationships between unions and economic development strategies in developing/recently developed countries; emphasis on social movement unionism and unions in Latin America and Asia.

LBS 5930 Topics in Labor Studies (1-3). This course includes selected topics or themes in Labor Studies. Themes will vary from semester to semester. With a change in content, course may be repeated. May include field work.

LBS 5931 Topics in the Philosophy and Methods of Conflict Research (3). This course provides an examination of the philosophy, methods, and research in the field of conflict resolution. The particular content and orientation of the course may vary according to the particular focus examined.

LBS 6906 Directed Individual Study (3). Specialized intensive study in areas of interest to student. Student plans and carries out independent study project under the direction of faculty member. Topics must relate to content of Labor Studies or ADR. Prerequisite: Permission of instructor.

LBS 6945 Internship Labor Studies / Alternative Dispute Resolutions (3). Practical training and experience in organization according to students' needs and interests. Reports and papers required. Prerequisite: Permission of instructor.

LEI 5166C Deviant Leisure (3). This course explores leisure pass times, that are forbidden by law, custom, or belief. Students will examine the negative aspects of leisure. (e.g. substance abuse, harmful sex, gambling and gang activity.)

LEI 5440 Program Development in Parks, Recreation, and Sports (3). This course examines the development of specific programs in parks, recreation, and sports. (S)

LEI 5510 Program Administration in Parks, Recreation and Sport (3). This course is a detailed analysis of

administrative procedures and responsibilities in connection with parks, recreation facilities and human resources. (F)

LEI 5595 Seminar in Parks and Recreation Management (3). This course focuses on current problems, issues, and trends in the administration of parks and recreation programs. (F)

LEI 5605 Philosophical and Social Bases of Parks and Recreation Planning (3). This course concentrates on major phases of predesign, design, development, actualization of park and recreation facilities. The course will explore funding, budget, site selection, layout, and maintenance. (F)

LEI 5716 Program Planning in Therapeutic Recreation (3). This course is designed to prepare the student for the development of systematically designed therapeutic recreation service delivery programs from the viewpoint of the T.R. specialist and the T.R. administrator. (S)

LEI 5719 Client Assessment, Evaluation and Documentation in Recreational Therapy (3). The course addresses client assessment, documentation and evaluation from the direct service perspective, administrative requirements, and health care regulatory agency demands. (S)

LEI 5801 Liability and Law in Leisure, Recreation and Sports (3). This course is a detailed analysis of legal issues related to leisure service, delivery and sport management including legal foundations, legal liability, disabled services and current case analysis. (S)

LEI 5907 Directed Study in Parks and Recreation Management (3). This course provides an opportunity for individuals interested in various aspects of park and recreation administration to work on their own under the close supervision of an advisor. Permission of the instructor is required. (F,S,SS)

LEI 6562 Leisure Services Marketing (3). This is an advanced application of service marketing principles and practices to both public and private leisure service industry to improve both effectiveness and efficiency of operations. (S)

LEI 6725 Administrative Aspects of Therapeutic Recreation (3). This is an in-depth examination of issues related to the roles and responsibilities of the Activity Therapies/Therapeutic Recreation Administrator. (S)

LEI 6726 Problems, Issues and Trends in Therapeutic Recreation (3). This is an elective that provides an examination of current issues, trends and professionalization concerns in therapeutic recreation. (F)

LEI 6727 Disabling Conditions in Therapeutic Activity Services Administration (3). This is an in-depth review of disabling conditions for the development of in-service training in recreational therapy and adapted activity services. (S)

LEI 6816 Leisure Education and Facilitation Techniques for Therapeutic Recreation (3). This is a focused survey of leisure education and counseling as applied in therapeutic recreation delivery systems. (F)

LEI 6922 Supervised Field Experiences in Parks and Recreation Administration (3-6). This course provides a

practical experience for individuals interested in administrative responsibilities. Permission of the instructor and Department Chairperson required. (AR)

LEI 6970 Thesis: Therapeutic Recreation (3-6). This is an elective in the Masters Recreational Therapy Track. It involves the design and preparation of an original scholarly investigation in recreational therapy. Prerequisite: EDF 5481. Corequisite: STA 6166. (AR)

MAE 5516 Diagnosis and Remediation in Mathematics (3). Available to undergraduate and graduate education majors. Provides study of symptoms, causes and consequences of children's math difficulties. Supervised case study included. Prerequisites: MAE 4310, or permission of the instructor. (AR)

MAE 5655 Computers in Mathematics Education (3). Examines the use of computers (microcomputers) in secondary school mathematics. Designing, evaluating, and using varied types of programs in mathematics classes. Learning to use computers to design mathematics curriculum. (F)

MAE 5908 Directed Study in Mathematics Education (1-3). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (F,S,SS)

MAE 5923 Special Topics in Elementary Math Education (3). Available to undergraduate and graduate education majors. Provides opportunities to produce and apply materials and strategies in math ed in elem and middle schools. (AR)

MAE 5945 Supervised Teaching: Mathematics Education (6). Supervised teaching in a middle or senior high school. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite course work in education and subject matter area. (S)

MAE 6305 Instruction to Early Childhood Mathematics (3). Required in master's program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials and review of research, in preschool, kindergarten and primary grades. Prerequisites: MAE 4310 or permission of the instructor. (AR)

MAE 6318 Instruction in Elementary Mathematics (3). Required in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in elementary mathematics education. Prerequisites: MAE 4310 or permission of the instructor. (F,S,SS)

MAE 6336 Teaching Mathematics in the Secondary School (3). Analysis of methods, programs, and materials for teaching mathematics in the middle and senior high school, and development of teaching skills. Prerequisites: Undergraduate secondary math methods and permission of the instructor. (S)

MAE 6745 Current Trends and Issues in Mathematics Education (1-3). Trends and Issues in Math Curriculum, new textbooks, curriculum development projects; curriculum implementations and evaluations. Trends and Issues in Instruction, new techniques. Trends and Issues in Evaluations. "New tests", Research. (AR)

MAE 6899 Seminar in Mathematics Education (3). Designed to provide the advanced student with deeper understanding related to mathematics education. (SS)

MAE 7165 Curriculum Development in Mathematics Education (3). This course is required in the Ed.D. degree program in mathematics education. It will examine the history of K-12 mathematics curriculum and the current issues in mathematics education. Prerequisites: MAE 5655, MAE 6336, MAE 6899, and the entire advanced core.

MAE 7938 Doctoral Seminar in Mathematics Education (3). Advanced doctoral study of current theories and research related to mathematics education. Prerequisites: EDF 6486, minimum of 3 doctoral level math courses.

MHS 5350 Educational-Vocational Counseling (3). This course explores concepts and skills pertaining to vocational development, information systems, career education programs, educational-vocational counseling, and socio-psychological influences on career development. Prerequisite: MHS 5400.

MHS 5400 Counseling Skills and Techniques (3). Major theoretical concepts in counseling, competencies in relationship-building, interviewing, role-playing, simulation, and micro-counseling will be explored in this course.

MHS 5460 Crisis Counseling and Intervention (3). Prevention and intervention strategies in crisis situations including child abuse and neglect, suicide, substance abuse, AIDS, and personal loss. (AR)

MHS 6020 Foundations of Mental Health (3). This course provides an examination of the significant events in the history of mental health care that has contributed to the development of the specialty within the counseling profession. Prerequisite: MHS 5400.

MHS 6200 Measurement and Appraisal in Counseling (3). This course will provide an in depth examination of the concepts and skills related to the use of tests and other appraisal procedures in counseling. Particular emphasis on career and vocational choice processes. Laboratory experiences included. Prerequisite: EDF 5481.

MHS 6410 Behavioral and Cognitive Modification Techniques in Counseling and Education (3). In this course, concepts and skills in using behavior modification, contingency contracting, cognitive behavior management, self-instructional training, problem solving skills and parent and/or teacher consultation.

MHS 6411 Counseling and Consultation in Community Settings (3). Extended laboratory experiences stressing the development of behavioral/cognitive intervention skills in short-term counseling and consultation. Prerequisites: MHS 5400 and MHS 6410 or equivalent.

MHS 6427 Adult Psychopathology (3). The study of the causes, treatment, and diagnosis of emotional and behavioral disturbances in adults will be examined in this course.

MHS 6428 Cross Cultural Counseling (3). In this course, concepts and skills involved in counseling clients with backgrounds different from the majority culture. Prerequisite: MHS 5400.

MHS 6450 Substance Abuse Counseling (3). This course will educate mental health practitioners in understanding substances and to assist in counseling those who abuse them.

MHS 6470 Human Sexuality Counseling (3). This course addresses counseling issues, strategies and resources in human sexuality relative to mental health professionals. Prerequisite: MHS 5400.

MHS 6500 Theories in Group Dynamics (3). A systematic examination of various theories and relevant research used in study of small group phenomena will be addressed. Prerequisites: MHS 5350, MHS 6513. (AR)

MHS 6505 Advanced Group Development Laboratory (3). Development of advanced skills in the analysis and understanding of group process, function, and structures through actual observation of an ongoing group will be addressed in this course. Prerequisites: MHS 6513, MHS 6514. (AR)

MHS 6511 Group Counseling (3). An exploration of roles and function of group counseling in meeting client needs in a variety of settings will be examined. Prerequisites: MHS 5400, MHS 6513, MHS 6514.

MHS 6511L Group Counseling Lab (1). This course is designed to allow students to participate in a group counseling experience. It will be led and facilitated by a licensed mental health professional. Prerequisite: MHS 5400. Corequisite: MHS 6511.

MHS 6512 Organization Development in Education (3). An analysis of theory and practice of organization development and planned change in educational systems. Prerequisites: MHS 6513 and MHS 6514. (AR)

MHS 6513 Human Interaction I: Group Process and Social Behavior (3). In this course, concepts, research, and theory relative to small group process. Students will participate in small face-to-face task groups, with an emphasis on developing competencies in diagnosis and intervention in small groups.

MHS 6514 Human Interaction II: Analysis of Group Participation (3). A focus on participation in an on-going group with attention given to examination of processes of small group phenomena such as interpersonal communication, norms, decision-making, leadership, authority, and membership will be provided in this course. Prerequisite: MHS 6513.

MHS 6519C Principles of Design in Group Intervention: Role of the Consultant (3). This course focuses on role of leader or trainer in complex training design in leadership and human relations training. Emphasis on diagnostic and behavioral skills that help groups become more effective. Prerequisites: MHS 6513, MHS 6514, MHS 6500, and MHS 6513. (AR)

MHS 6629 Human Interaction III: Organizational Consultation (3). Theoretical concepts and skills in organizational development and change will be examined as well as competencies in systems diagnosis and assessment, consultation, agenda setting, team building, decision-making, and feedback. Prerequisites: MHS 6513, MHS 6514. (AR)

MHS 6630 Program Evaluation in Counseling & School Psychology (3). This course evaluates skills in the student's area of specialization, including competencies in designing evaluation proposals and conducting an actual program evaluation. Prerequisite: EDF 5481.

MHS 6700 Ethical, Legal and Professional Issues in Counseling (3). This course addresses the competencies in regard to the development of major role and service models and the application of budgeting systems, legal, and ethical standards in a psycho-educational setting.

MHS 6800 Advanced Practicum in Counseling (3). In this course, advanced competencies in counseling and consultation will be provided. Prerequisite: Course work completion.

MHS 6802 Personality Theories (3). In this course, a survey of the various cognitive, psychodynamic, behavioral, humanistic, existential and family systems theories of personality development and change will be examined.

MHS 6820 Supervised Field Experience in Counseling (9). A demonstration of the full range of competencies learned throughout the program in Counseling will be established through an internship. The internship placements include a variety of field settings. Prerequisites: MHS 6800 and course work completion.

MHS 6910 Directed Study in Counseling and School Psychology (1-6). Competencies contracted for between a student and an instructor in accordance with the student's individual needs will be permitted in this course. Permission of the instructor required.

MHS 6930 Special Topics in Counseling and School Psychology (1, repeatable to 9). In this course, special topics in relation to counseling or school psychology will be examined. Permission of the instructor required.

MUE 5907 Directed Study in Music Education (1-3). Individual investigation in one or more areas of music education. (F,S,SS)

MUE 5928 Special Topics in Music Education (2). Applications of materials and techniques in music in a laboratory or field setting. (AR)

MUE 5945 Supervised Teaching: Music Education (6). Supervised teaching. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and the subject matter area. (S)

MUE 6305 Instruction in Early Childhood Music (3). Elective in masters program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in preschool, kindergarten and primary grades. (AR)

MUE 6316 Instruction in Elementary Music (3). Elective in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education. (AR)

MUE 6345 The Methodology and Analysis of Music Teaching (3). A data based analysis of methods and programs in the public schools and the development of music pedagogy skills. Reviews current research findings

and applies them where applicable to the field of Music Education. Required for the Masters Degree. Prerequisite: Undergraduate Degree. (F)

MUE 6785 Research in Music Education (3). A survey of current research and past research trends in music education. Applied training in techniques of design and data analysis. (AR)

MUE 6815 Psychological Foundations of Music Behavior (3). Overview of acoustical, psychological and physiological foundations of music as it influences human behavior. Covers musical acoustics, anatomy of human hearing, music perception, reactions, personality, mood and powers of music discrimination. Required for the Master of Science in Music Education degree. Prerequisite: Undergraduate degree. (S)

MUE 6925-26 Special Topics in Music Education (1-3). Applications of new, innovative or contemporary materials and/or techniques in music education. May be used for elective credit with permission of the program director. (AR)

MUE 6938 Seminar in Music Education (3). Seminar topics concerning historic music education programs in the United States and other countries, as well as current issues and problems facing the music educator. Required for the Master of Science in Music Education degree. Prerequisites: Undergraduate degree. (S)

PEP 5115 Health/Fitness Instruction (3). This course provides the knowledge and skills to evaluate and prescribe health and fitness enhancement programs for healthy adults. Prerequisite: PET 3351. (F)

PEP 5116 Exercise Prescription (3). This course provides the knowledge to prescribe exercise for persons with medical limitations, particularly cardiovascular disease. Prerequisites: PET 3351 and PET 5521 (S)

PEP 5117 Fitness for Older Adults (3). The course explores the value of physical activity for improving the physical and mental well being of older adults. Emphasis is placed on exercise prescription and supervision of programs for those working with older adults. Prerequisite: PET 3351. (AR)

PET 5052C Motor Learning for Sport Performance (3). The emphasis in this course is on current and advanced topics related to motor skill acquisition. Laboratory practices and applied techniques related to teaching are examined. (F)

PET 5206 Youth Sports (3). This course provides insight into the issues surrounding youth sport programs including: program development and analysis, parental influences, relationship of sport to psycho-socio development. (AR)

PET 5216 Sports Psychology (3). This course includes an analysis of psychological variables that influence physical performance. The course is intended for prospective physical educators, coaches, and others interested in motor performance. (S)

PET 5256 Sociology of Sport (3). Students will be introduced to basic principles of the sociological bases of sport and physical activity. (S)

PET 5355 Advanced Exercise Physiology (3). This course provides a detailed examination of the acute and chronic responses to exercise and training. Particular attention is given to responses at the systems and cellular levels. Prerequisite: PET 3351.

PET 5368 Exercise, Diet and Weight Management (3). The class prepares students to compare the effectiveness of exercise and several popular diets on weight control and body composition. Prerequisites: HUN 2201 and PET 3351.

PET 5391C Comprehensive Conditioning of Elite Athletes (3). The course prepares a student to develop a comprehensive conditioning program including metabolic, speed, flexibility, plyometric and resistance training. Prerequisite: PET 3351.

PET 5426 Curriculum in Physical Education (3). The emphasis is on curriculum design and development for Physical Education. Includes examination of objectives, content, methods of teaching and evaluation.

PET 5436 Physical Education Curriculum: K-8 (3). This course examines objectives, content, methods of teaching, and evaluative techniques in physical education. The emphasis is on curriculum design and development.

PET 5447 Curriculum in Physical Education 6-12 (3). The goal of this course is to understand the theoretical and practical aspects of designing, developing, and implementing curriculum for the secondary school.

PET 5521 Exercise Test Technology (3). This course provides the knowledge and skill required to conduct an EKG monitored graded exercise test. Prerequisite: PET 3351. (F)

PET 5625 Sports Medicine (3). The class includes topics related to the prevention and treatment of non-traumatic athletic injuries. Practical applications in laboratory experiences are required. Prerequisite: Exercise Physiology. (S)

PET 5693 Exercise Testing and Prescription of Special Populations (3). The course prepares a student to test and prescribe exercise programs for selected special population groups. Prerequisite: PET 3351.

PET 5906 Directed Study in Physical Education (1-3). Students will work independently on a topic concerning some phase of physical education or sport under the guidance of a faculty member. Registration is by permission of advisor. (F,S,SS)

PET 5925 Practicum in Physical Education (1-3). This course focuses in the production and/or application of materials and techniques for physical education in a classroom and/or field setting. (F,S)

PET 5931 Special Topics in Exercise Physiology (1-3). This course presents contemporary issues and practices in exercise physiology. Prerequisite: PET 3351. (AR)

PET 5936 Special Topics in Physical Education (1-3). This course presents contemporary issues and practices in physical education and sport. (AR)

PET 5948 Practicum in Physical Education (3). This course focuses on the production and/or application of

materials and techniques for physical education in a classroom and/or field setting.

PET 6405 Health Fitness Director (3). This course prepares the student for ACSM's Health Fitness Director certification. Prerequisites: PET 3351 and PEP 5115. (SS)

PET 6535 Master of Science Research in Exercise and Sports Sciences (1-3). The course is for graduate students performing an independent research project (treatise) or thesis as part of the graduate program of study. Prerequisites: EDF 5481 or equivalent and PET 6597 – Survey of Research.

PET 6558 Human Performance in Extreme Environments (3). Maintaining optimal health, fitness, and performance during physical work in stressful environments including heat, altitude, cold and underwater pressure. Prerequisites: Anatomy, Physiology, Exercise Physiology.

PET 6597 Survey of Research in Physical Education (3). This course covers the methods and techniques used in research in physical education. The emphasis is on effective use of resources and writing techniques. (F)

PET 6785 Exercise Program Director (3). This course prepares the student for ACSM's Exercise Program Director certification examination. Prerequisites: PET 3351, PET 5521, and PEP 5115. (SS)

PET 6925-27 Practicum in Physical Education (1-3). This course focuses on the production and/or application of materials and techniques for physical education in a classroom and/or field setting. (F,S)

PET 6932 Seminar in Physical Education (3). Students will participate in the exploration, examination, and discussion of problems, issues, and trends in physical education and sport. (AR)

PET 6938 Graduate Research Seminar (1). The seminar is designed to introduce the graduate student to basic science concepts and hands on experience with scholarly inquiry in the sport and leisure science. Corequisite: EDF 5481.

PET 6940 Internship in Exercise Physiology: Graduate (3-6). This is a clinical experience, supervised by physician, designed to provide the student with competence in exercise prescription and leadership in preventive and rehabilitative outpatient exercise programs. Prerequisites: PET 5387, PEP 5115, and PEP 5116. (F,SSS)

PET 6944 Supervised Field Experience (3-9). Students may use this course to become involved in an in-depth study, research project, or any one of a variety of other activities, under the guidance of a faculty member. (AR)

RCS 6031 Rehabilitation Counseling: Principles and Practices (3). A survey course that provides an orientation to the rehabilitation process including the history, principles, philosophy, and legal aspects of rehabilitation counseling and related fields.

RCS 6625 Service Delivery and Case Management in Rehabilitation Counseling (3). This course covers an evaluation of disability and rehabilitation potential in the context of service delivery and case management in the

vocational rehabilitation process. Prerequisite: RCS 6031 Rehabilitation Counseling: Principles and Practices.

RCS 6801 Advanced Practicum in Counseling and Consultation (3). Advanced competencies in counseling and consultation.

RCS 6821 Supervised Field Experience in Counseling and Consultation (9). Demonstration of the full range of competencies learned throughout the program in counseling. Internship placements include a variety of field settings. Prerequisite: RCS 6801.

RED 5147 Developmental Reading (3). Process of reading. Principles, procedures, organization and current practices in the developmental reading program. Overview of instructional practices.

RED 5304 Literacy Instruction in the Primary Grades (3). Provides understandings, skills and dispositions needed to teach reading and writing to students who are beginning to become literate. Required for students in VE Modified Masters Program. Prerequisites: EDG 5415 and EDG 5415L. Corequisite: EEX 4940.

RED 5339 Subject – Related Reading (3). Skills, techniques and strategies for scaffolding the reading of struggling students and enhancing the comprehension and learning independence of all students using subject area materials. Prerequisite: EDG 5414.

RED 5447 Analysis and Production Reading Materials (3). Elective in graduate program in Reading Education. Exploration, creation, and evaluation of basic reading materials. Prerequisites: RED 4150 or equivalent. (AR)

RED 5448 Teaching Reading by Computer (3). Elective in graduate program in Reading Education. Exploring literacy development with technology. Evaluation and creation of computer programs for teaching reading in grades 4-12. No prior computer experience is required. (AR)

RED 5911 Directed Study in Reading (1-3). Elective in Reading Education. Directed study in area of reading instruction. Permission of the instructor required. (AR)

RED 5925 Special Topics in Reading (3). Elective in master's program in Reading Education. Study in a specified area of reading education. (AR)

RED 6247 Organization and Supervision of Reading Program (3). Required in graduate program in Reading Education. Philosophy, history design, and operation of public and private reading programs. Prerequisites: RED 6155 or equivalent. (AR)

RED 6305 Instruction in Early Childhood Reading (3). Required in graduate program in early childhood education. Program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood reading education. Prerequisites: RED 4150 or equivalent. (AR)

RED 6314 Theory and Instruction in Literacy (3). Required in graduate program in elementary and reading education. Process of reading program development, methods of teaching, selection of materials, and review of research in elementary reading education. Prerequisites: RED 4150 or equivalent. (AR)

RED 6336 Reading in the Content Areas (3). Required in graduate programs in elementary and reading education and in secondary Modified Master's Programs. Strategies for developing the reading abilities of students in specific subject areas. Prerequisite: RED 6314 For Reading Education majors. (AR)

RED 6515 Programs of Remediation in Reading (3). Required in graduate program in reading education. Knowledge and strategies necessary to improve students' reading abilities. Prerequisites: RED 6155 or RED 6305, RED 6546, or their equivalents. (AR)

RED 6540 Reading Assessment (3). Formal and informal assessment for evaluating students and planning data-driven instruction in reading. focus on record keeping and tracking progress, PK-college. Required for MS in reading.

RED 6546 Diagnosis of Reading Difficulty (3). Required in graduate program in reading education. Knowledge and strategies necessary to assess students' reading abilities. Prerequisites: RED 6155 or RED 6305, or its equivalent. (AR)

RED 6747 Research in Reading (3). Required in doctoral program and thesis track of Reading Education master's program. Elective in standard Master's track. Includes reading research, critique, methodology and planning. Prerequisite: EDF 5481. (AR)

RED 6805 Practicum in Reading (3). Elective in graduate program in reading education. Supervised experience as reading professional in teaching, assessing, supervising, or research role. Prerequisite: RED 6314. (F,S)

RED 6845 Clinical Procedures in Reading (3). Elective in graduate program in Reading Education. Reading diagnosis, instruction, and reevaluation in a clinical setting. Prerequisites: RED 6515, RED 6546. (AR)

RED 6931 Seminar in Reading Education (3). Required in doctoral program and thesis track of reading master's program. Elective in standard Master's track. Deals with theory and practice of reading instruction. Prerequisites: Permission of the instructor and RED 6747. (AR)

RED 6932 Critical Issues in Reading Education (3). Elective in Reading Education master's program. Explores topics in specific reading education. (AR)

RED 6971 Thesis in Reading Education (6). Required in thesis track of reading master's program. Design, implementation, and written report of an original research investigation in reading education. Prerequisites: Advanced graduate standing and consent of instructor. (F,S,,SS)

RED 7912 Doctoral Directed Study in Reading (1-6). An elective course in the reading education doctoral program. Directed research in a specified area of reading education. Repeatable. Prerequisite: Admission to reading education doctoral program. (AR)

RED 7938 Doctoral Seminar in Reading Education (3). Required in Reading Education doctoral track. Advanced study in current theories and research related to reading education. Prerequisites: RED 6747, RED 6931. (AR)

SCE 5905 Directed Study in Science Education (1-3). The student plans and carries out an independent study

project under direction. Prerequisite: Consent of instructor. (F,S,SS)

SCE 5930 Special Topics in Elementary Science Education (3). Available to undergraduate and graduate education majors. Provides knowledge and skills, content, strategies and materials for teaching elementary science. Permission of the instructor required. (AR)

SCE 5945 Supervised Teaching: Science Education (6). Supervised teaching in a middle or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and subject matter area. (F,S)

SCE 6306 Instruction in Early Childhood Science (3). Required in masters program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in preschool, kindergarten and primary grades. Prerequisites: SCE 4310 or permission of the instructor. (AR)

SCE 6315 Instruction in Elementary Science (3). Required in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in elementary science education. Prerequisites: SCE 4310 or permission of the instructor. (AR)

SCE 6366 Teaching Science in the Secondary School (3). Analysis of methods, programs, and materials for teaching science in the junior and senior high school, and development of teaching skills.

SCE 6637 Science Education and Community Resources (3). This course examines the utilization and cultivation of community resources to meet science education goals for various populations. (AR)

SCE 6925-26 Workshop in Science Education (1-3). Production and application of materials and techniques in science education in a laboratory or field setting. (AR)

SCE 6931 Special Topics in Science Education (3). An individual topic or limited number of topics not otherwise offered in the curriculum that facilitate science teaching in the elementary school will be selected. (AR)

SCE 6933 Seminar in Science Education (3). Analysis of research trends and selected topics in science education. Mainly for graduate students in secondary science education. Individual needs and interests will determine the fine structure of the course content. (S)

SCE 7165 Curriculum Development in Science Education (3). Analysis of theoretical basis of curriculum development in Science Education. Evaluation of currently available material. Development and testing of science curriculum materials. Prerequisites: SCE 6933, EDF 6486. (S)

SCE 7761 Research in Science Education (3). Application of research methodology to Science Education. Analysis of current research. Development of research proposal in Science Education. Conduct field study. Prerequisites: SCE 6933, EDF 6486, SCE 7165. Corequisite: SCE 7938. (SS)

SCE 7938 Doctoral Seminar in Science Education (3). Advanced doctoral seminar in current theories and

research related to science education. Prerequisites: SCE 6933, EDF 6486. (SS)

SDS 5460 Crisis Counseling and Intervention (3). This course addresses prevention and intervention strategies in crisis situations including child abuse and neglect, suicide, substance abuse, AIDS, and personal loss. (S,SS)

SDS 6411 Counseling Children and Adolescents (3). Theory and application of counseling elementary age children and adolescents including family issues and interventions, legal and ethical considerations and counseling at-risk and exceptional children. Prerequisite: MHS 5400.

SDS 6640 Organization and Administration of Student Affairs (3). This course is an exploration of organizational and administrative issues in Student Affairs including relationship to other executive areas, interrelationship of units, research, leadership and case studies. Prerequisite: SDS 6646 Introduction to Students Affairs Administration.

SDS 6646 Introduction to Student Affairs Administration (3). This course is an overview of student affairs administration through a review of its history, theoretical foundations, functional areas, legal concerns, administrative structures and current and future issues.

SDS 6700 Organization and Administration of School Counseling (3). Components, elements and interventions of comprehensive, developmental school guidance program models with an emphasis on organization, administration, and evaluation of system, components, and services are addressed in this course. (F,SS)

SDS 6784 School Law for Student Service Workers (3). An overview of current legal issues and problems for school counselors, psychologists and social workers are addressed. (SS)

SDS 6800 Advanced Practicum in Counseling (3). A practicum field experience that covers advanced competencies in counseling and consultation. Prerequisite: Course work completion. (F,S,SS)

SDS 6820 Supervised Field Experience in Counselor Education (9). This internship course covers a practical demonstration of the full range of competencies learned throughout the school counseling program. Internship placements include a variety of school field settings. (F,S)

SDS 6930 Special Topics in Counseling and School Psychology (3, repeatable to 9). Courses covering special topics in relation to counseling or school psychology. (F,S,SS)

SPS 6190 Academic Assessment and Intervention in the Schools (3). Students will receive supervised practice using norm-referenced and curriculum-based measures to provide academic assessments and monitor academic progress. Emphasis will be placed on linking academic assessment to intervention. Prerequisite: EDF 5481.

SPS 6191 Psycho-Educational Assessment I: Intellectual (3). This course addresses competencies in the assessment of intellectual ability and adaptive behavior in children. Corequisite: SPS 6191L for School Psychology majors. No corequisite for other majors. (F)

SPS 6191L Psycho-Educational Assessment I: Lab (2). Practical skills in the assessment of intellectual ability and

adaptive behavior in children are covered in this course. Corequisite: SPS 6191. Lab fee required. (F)

SPS 6192 Psycho-Educational Assessment II: Process

(3). This course addresses competencies in the assessment of psycho-educational processes in children and their relationship to intellectual ability. Corequisite SPS 6192L for School Psychology majors. No corequisite for other majors. Prerequisite: SPS 6191. (S)

SPS 6192L Psycho-Educational Assessment II: Lab

(2). Practical skills in the assessment of psycho-educational processes in children are covered in this course. Emphasis on assessing disorders in the visual, auditory, haptic, language, and sensory integration areas. Corequisites: SPS 6191, SPS 6191L. Lab fee required. (S)

SPS 6193 Psycho-Educational Assessment III: Behavior

(3). Competencies in behavioral and personality assessment of students within the school setting with emphasis on projective testing and behavioral observations are addressed in this course. Corequisite: SPS 6193L. Prerequisites: SPS 6191, SPS 6192. (SS)

SPS 6193L Psycho-Educational Assessment III: Lab

(3). Practical skills in projective and behavioral assessment of students within the school setting are covered in this course. Corequisite: SPS 6193. Prerequisites: SPS 6191, SPS 6192. Lab fee required. (SS)

SPS 6199 Family-School Consultation and Collaboration

(3). This course is designed to develop essential communicative/interactive interpersonal skills, as well as collaborative problem-solving skills, in special education, counseling, and school psychology graduate students. Corequisite: Graduate standing. (AR)

SPS 6678 Supervised Field Experience in School Psychology

(1-10). An internship where students demonstrate of the full range of competencies learned throughout the program in School Psychology. Internship placements include a variety of field settings. (F,S)

SPS 6805 Professional Problems in School Psychology

(3). In this course competencies in regard to the development, role and function of school psychologists are covered. General orientation and legal and ethical issues are included. (F)

SPS 6930 Academic and Behavioral Interventions in the Schools

(3). An introduction course to effective academic and behavioral school-based interventions including a functional assessment of behavior. (SS)

SPS 6941 Supervised Practicum in School Psychology

(3). Student engage in supervised clinical experience. This course may be repeated. Prerequisites: SPS 6805 and permission of the instructor.

SPS 7195 Child Psychopathology: Assessment and Intervention in the Schools

(3). This course emphasizes the consideration of development issues and processes when conceptualizing psychopathology and is designed to prepare school psychology students to provide assessment, direct intervention, and indirect intervention services in school settings. Prerequisite: SPS 6805.

SPS 7407 Behavioral Intervention in the Schools

(3). This course is designed to introduce techniques of

behavioral intervention applicable to the school setting. A problem solving approach to prevention and intervention at the individual, class and school level will be emphasized.

SPS 7705 Neuropsychological Issues in School Psychology

(3). This course provides a review of neuropsychological theories and research that pertains to children and schooling. The goal of this course is to provide competencies in the application of neuropsychological perspective in school settings. Prerequisite: SPS 6191.

SSE 5381 Developing a Global Perspective

(3). Theory, content, and practice. Introduction and utilization of learning materials and teaching strategies in Global Education for K-12.

SSE 5385 Special Teaching Laboratory: Social Studies

(3). Development of instructional skills, techniques, and strategies for teaching Social Studies in the Middle School and Senior High School. Prerequisite: EDG 5414.

SSE 5908 Directed Study in Social Studies Education

(1-3) (ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (F,S,SS)

SSE 5929 Workshop in Elementary Social Studies Education

(3). Available to undergraduate and graduate education majors. Provides knowledge and skills, content, strategies and materials for teaching social studies. Permission of the instructor required. (AR)

SSE 5945 Supervised Teaching: Social Studies Education

(6). Supervised teaching in a middle or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and subject matter area. (S)

SSE 6305 Instruction in Early Childhood Social Studies

(3). Required in masters program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in preschool, kindergarten and primary grades. (AR)

SSE 6355 Instruction in Elementary Social Studies

(3). Required in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research in elementary social studies education. (AR)

SSE 6394 Social Studies in Other Nations

(3). The course will examine the concept of social studies as a subject area in elementary and secondary schools found in both developed and developing nations. Comparisons and contrasts will be made. Prerequisites: SSE 6633, SSE 6939. (AR)

SSE 6633 Teaching Social Studies in the Secondary School

(3). Analysis of methods, programs, and material for teaching social studies in the middle and senior high school, and development of teaching skills. (S,SS)

SSE 6795 Seminar: Research in Social Studies Education

(3). The course will examine research in social studies education. The course will serve as a lab for developing a dissertation research design. Prerequisite: EDF 5481. Corequisites: EDF 6486, EDF 6403 or EDF 6475. (AR)

SSE 6924 Workshop in Content, Method, and Materials of Teaching Social Studies (1-3). Focus on content, methods, and materials needed for teaching social studies in the elementary school, K-6. (AR)

SSE 6925-28 Workshop in Social Studies Education (1-3). Production and application of materials and techniques in social studies education in a laboratory or field setting. (AR)

SSE 6939 Seminar in Social Studies Education (3). Designed for advanced students, the readings and discussions will focus on policy issues and recent research in social studies education. Though primarily for experienced social studies teachers and supervisors, the course is open to administrators and others, with the consent of the instructor. (S)

SSE 7938 Doctoral Seminar in Social Studies Education (3). Advanced doctoral study in current theories and research related to social studies education. Prerequisites: SSE 6939, EDF 6486. (AR)

TSL 5086C TESOL Issues and Methodologies I (3). Initial teacher preparation course which introduces issues, principles, and practices for teaching English to non-English speakers. Fulfills requirements.

TSL 5087C TESOL Issues and Methodologies II (3). Initial teacher preparation course which provides understanding, skills and dispositions needed to select, evaluate, and apply TESOL strategies in classrooms with non-English speakers. Fulfills requirements. Prerequisite: TSL 5086C.

TSL 5142 Curriculum Development in English as a Second Language (3). Description, analysis, planning, design, and evaluation of curriculum in English as a second language (K-adult). (F,S)

TSL 5245 Developing ESOL Language and Literacy (3). This course examines how linguistic theories are applied in the classroom for the development of language and literacy in language minority students. (F,S)

TSL 5361C TESOL for Secondary Teachers (3). Initial teacher preparation course including analysis, application and adaptation of ESOL methods to enhance instruction for linguistically and culturally diverse students. Fulfills META requirements.

TSL 5371 Special Methods of TESOL (3). Investigation of modern techniques for the teaching of oral and written communication in English to non-native speakers of English, including the evaluation and development of materials for English to speakers of other languages. Issues in elementary, secondary, adult, vocational, and special education will also be addressed. (F,S)

TSL 5938 Principles of ESOL Testing (3). Advanced study and research on current issues in the field of ESOL testing. Topics include principles and practices of ESOL testing for classroom use, communicative language test development, criteria for evaluating testing instruments, and study of standardized ESOL tests. Prerequisites: TSL 5371 or TSL 4340. (S)

TSL 6350 Troublesome English: Grammar for ESOL Teachers (3). Course is designed to enhance ESOL teachers' ability to understand and explain the operation of

American English grammar using an inductive approach of exploration and discovery. (AR)

TSL 6375C Teaching ESOL Pronunciation and Accent Reduction (3). A course in the TESOL Master's program investigating the theories and methods of teaching pronunciation skills to ESOL students. Prerequisite: LIN 3010.

TSL 6376C Reading and Writing Strategies for ESOL Students (3). A Master's level course in the TESOL Master's program investigating theories and methods of teaching literacy skills, namely reading and writing, to ESOL students.

TSL 6908 Field Component (3). Provides opportunity to carry out a variety of projects designed to develop critical reflection about teaching beliefs and practices in an ESOL classroom environment. Prerequisites: Admission to MS/TESOL program and completion of required course work. (F,S)

College of Education

Interim Dean

Senior Associate Dean, Operations

Associate Dean, Research and

Grants

Assistant Dean, Student Affairs

Interim Chair, Curriculum and

Instruction

Chair, Educational Leadership and Policy

Studies

Chair, Educational and Psychological

Studies

Executive Director, Center for Urban

Education & Innovation

Director, Advising Center

Director, Center for Labor Research and

Studies

Director, Field Experiences

Director (Acting), Intercultural Institute

for Education Initiatives

Director, Office of Technology

Kingsley Banya

Carmen Mendez

Abbas Tashakkori

Marta M. Medina

George O'Brien

Delia Garcia

Leonard Bliss

Lisa Delpit

Marta Vazquez-Syms

Dawn Addy

Judith Cohen

Hilary Landorf

Oscar Parrale

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Delpit, Lisa, Ed.D. (Harvard University), *Professor, Executive Director, Center for Urban Education & Innovation, Socio Linguistics, Educational Leadership and Policy Studies*

Dottin, Erskine S., Ph.D. (Miami University, Oxford, OH), *Professor, Educational Foundations, Educational Leadership and Policy Studies*

Dwyer, Eric, Ph.D. (University of Texas), *Associate Professor, TESOL, Modern Language Education, Curriculum and Instruction*

Ellison, Helen, Ed.D. (Florida International University), *Assistant Professor (Courtesy Appointment), Higher Education*

Farouk, Mohammed K., Ed.D. (West Virginia University), *Associate Professor, Social Studies/Global Education, Curriculum and Instruction*

Fernandez, Maria L., Ph.D. (University of Georgia), *Associate Professor, Mathematics Education, Curriculum and Instruction*

Fine, Joyce, Ed.D. (Florida International University), *Associate Professor, Reading and Language Arts Education, Curriculum and Instruction*

Garcia, Delia C., Ed.D. (Florida International University), *Associate Professor, Urban Education Educational Leadership and Policy Studies*

Gonzalez, Roger Geertz, Ph.D. (Pennsylvania State University), *Assistant Professor, Higher Education, Educational Leadership and Policy Studies*

Gregg, Gail, Ph.D. (Florida State University), *Associate Professor, English Education, Curriculum and Instruction*

Ilon, Lynn (Florida State University), *Associate Professor, International Development Education Foundation, Educational Leadership and Policy Studies*

Jones, Rosa L., DSW (Howard University), *Associate Professor (Courtesy Appointment), Higher Education*

Kenny, Maureen, Ph.D. (Nova-Southeastern University), *Associate Professor, Counselor Education, Educational and Psychological Studies*

Kossack, Sharon Wall, Ph.D. (University of Georgia), *Professor, Reading and Language Arts Education, Curriculum and Instruction*

Krauss, Lisbeth Dixon, Ph.D. (University of Florida), *Associate Professor, Literacy Education, Curriculum and Instruction*

Landorf, Hilary, Ph.D. (New York University), *Assistant Professor, Social Studies Education, Curriculum and Instruction*

- Lazarus, Philip J., Ph.D.** (University of Florida), Associate Professor, Educational and Psychological Studies
- Lopez, Richard, Ed.D.** (Florida Atlantic University), Associate Professor, Exercise Physiology, Health, Physical Education, and Recreation
- Lucky, Luretha, Ed.D.** (Arizona State University), Associate Professor, Special Education, Educational and Psychological Studies
- Lunsford, Larry, Ph.D.** (University of Pittsburgh), Assistant Professor (Courtesy Appointment), Higher Education
- Manfra, Louis, Ph.D.** (George Mason University), Assistant Professor, Early Childhood Education, Curriculum and Instruction
- Marshall, Nancy, Ph.D.** (Cornell University), Associate Professor, Reading and Language Arts Education, Elementary Education, Curriculum and Instruction
- Matus, Claudia, Ph.D.** (University of Illinois at Urbana-Champaign), Assistant Professor, Higher Education, Educational Leadership and Policy Studies
- McEachern, Adriana, Ph.D.** (University of Florida), Associate Professor, Counselor Education, Educational and Psychological Studies
- McKenney, Alexis, M.A.** (University of Florida), Associate Professor, Recreation and Leisure St., Health, Physical Education and Recreation
- Medina, Marta M., M.S.Ed** (University of Miami), Assistant Dean, Student Affairs
- Mendez, Carmen, MPA** (Florida International University), Instructor and Senior Associate Dean for Operations
- Mendoza, Alicia, Ed.D.** (University of Miami), Associate Professor, Elementary Education, Curriculum and Instruction
- Michel, Rochelle, Ph.D.** (Fordham University), Assistant Professor, Measurement, Educational and Psychological Studies
- Miller, Lynne D., Ph.D.** (University of Arizona), Associate Professor Literacy Education, Curriculum and Instruction
- Mirón, Louis F., Ph.D.** (Tulane University), Professor, College of Education
- Mohamed, Dominic A., Ph.D.** (University of Minnesota), Professor, Vocational Administration and Supervision and Vocational Education, Center for Labor, Research and Studies
- Montgomery, Marilyn, Ph.D.** (Texas Tech University), Associate Professor, Counselor Education, Educational and Psychological Studies
- Moseley, Bryan, Ph.D.** (University of California at Santa Barbara), Assistant Professor, Educational and Psychological Studies
- Musoba, Glenda Droogsma, Ph.D.** (Indiana University), Assistant Professor, Higher Education, Educational Leadership and Policy Studies
- Nissen, Bruce, Ph.D.** (Columbia University), Director of Research and Non-Credit Programs, Center for Labor, Research and Studies
- O'Brien, George E., Ph.D.** (University of Iowa), Associate Professor, Science Education, Curriculum and Instruction
- Pelaez, Martha, Ph.D.** (Florida International University), Professor, Educational Psychology, Educational and Psychological Studies
- Perez-Prado, Aixa, Ph.D.** (Florida State University), Instructor, Teaching English as a Second Language, Curriculum and Instruction
- Reio, Thomas, Ph.D.** (Virginia Polytechnic Institute and State University), Associate Professor, Adult Education and Human Resource Development, Educational Leadership and Policy Studies
- Ritzi, William M., M.S.** (Florida International University), Instructor, Art Education, Curriculum and Instruction
- Robbins, Helen, M.S.** (Florida International University), Instructor, Reading Education, Language/Literacy/ Culture, Curriculum and Instruction
- Rocco, Tonette** (Ohio State University), Associate Professor, Adult Education and Human Resource Development, Educational Leadership and Policy Studies
- Rodriguez, Louie F., Ed.D.** (Harvard University), Assistant Professor, Urban Education/Social Foundations, Educational Leadership and Policy Studies
- Rosenberg, Howard, Ed.D.** (Teachers College, Columbia University), Associate Professor, Special Education, Educational and Psychological Studies
- Sanders-Reio, Joanne, Ph.D.** (University of Maryland), Instructor, Educational Psychology, Educational and Psychological Studies
- Sandiford, Janice R., Ph.D.** (Ohio State University), Professor, Higher Education, Health Occupations Education, Higher Education, Educational Leadership and Policy Studies.
- Shealey, Monika, Ph.D.** (University of Central Florida), Assistant Professor, Special Education, Educational and Psychological Studies
- Simms, E. George, Ph.D.** (Boston University), Assistant Professor (Courtesy Appointment), Higher Education
- Spears-Bunton, Linda, Ed.D.** (University of Kentucky), Associate Professor, English Education, Curriculum and Instruction
- Taskakkori, Abbas, Ph.D.** (University of North Carolina, Chapel Hill), Professor, Educational Research, Educational and Psychological Studies
- Thirunarayanan, M.O., Ph.D.** (Arizona State University), Associate Professor, Learning Technologies, Curriculum and Instruction
- Toomer, Jethro, Ph.D.** (Temple University), Professor, Counselor Education, Educational and Psychological Studies
- Valle-Riestra, Diana, Ph.D.** (University of Miami), Assistant Professor, Early Childhood/Special Education, Educational and Psychological Studies
- Vos, Robert, Ed.D.** (Rutgers University), Associate Professor, Learning Technologies, Curriculum and Instruction
- Weinstein, Marc G.** Associate Professor, Adult Education and Human Resource Development, Educational Leadership and Policy Studies

Wolff, Robert M., Ph.D. (*Ohio State University*),
Associate Professor, Parks and Recreation,
and Sport Management, Health, Physical
Education and Recreation

Wynne, Joan, Ph.D. (*Georgia State University*),
Associate Director, Center for Urban Education
and Innovation

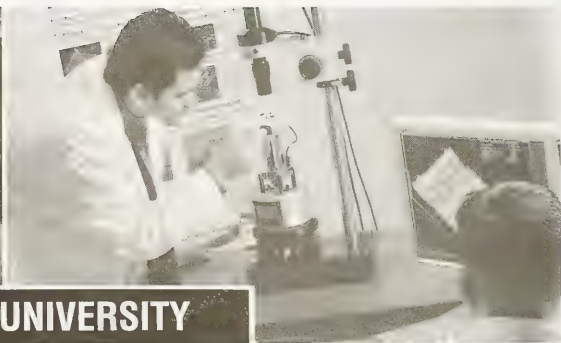
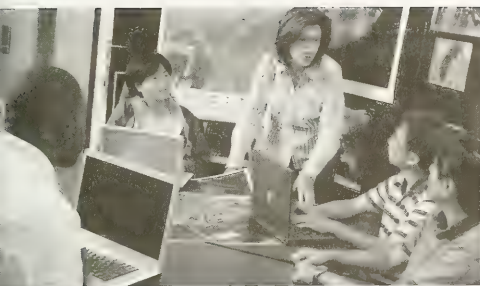
Professor Emeritus

Fain, Stephan M., Ed.D. (*Teachers College, Columbia University*), Professor, Curriculum and Instruction, Educational Leadership and Policy Studies

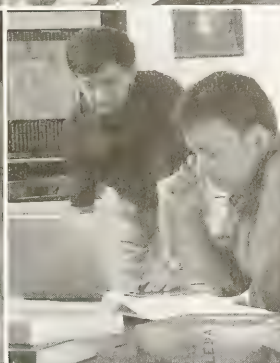
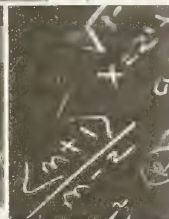
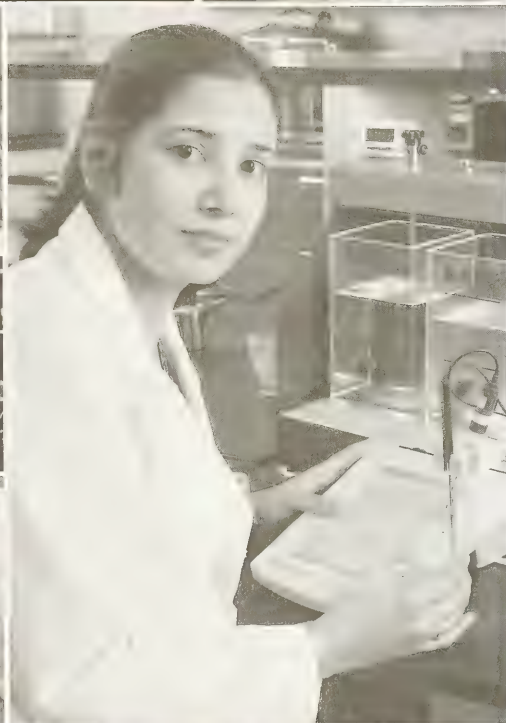
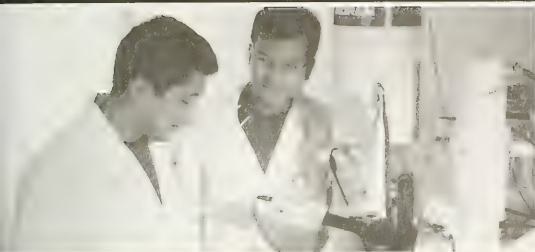
Gavilan, Marisal, Ed.D. (*University of Tennessee*),
Associate Professor, Educational Psychology and
Bilingual Education/TESOL, Educational and
Psychological Studies

Slater, Judith J., Ed.D. (*University of Florida*),
Associate Professor, Curriculum and Instruction,
Educational Leadership and Policy Studies

Smith, Douglas H., Ph.D. (*Ohio State University*),
Professor, Adult Education and Human Resource
Development, Educational Leadership and Policy
Studies



FLORIDA INTERNATIONAL UNIVERSITY



COLLEGE OF
**ENGINEERING
AND COMPUTING**

College of Engineering and Computing

<i>Interim Dean</i>	Amir Mirmiran
<i>Dean, School of Computing and Information Sciences</i>	Yi Deng
<i>Associate Dean for Academic Affairs</i>	Cesar Levy
<i>Associate Dean of Graduate Studies</i>	Jainendra Navlakha
<i>Associate Dean, School of Computing and Information Sciences</i>	Masoud Milani

The College of Engineering and Computing is committed to educate professionals who can **serve industry and the community at large** in a wide variety of fields, as well as **conduct innovative basic and applied research** that meets the technical needs of industry and government, improves the quality of life, and contributes to the economic viability of Florida, the Nation, and the world.

The College of Engineering and Computing consists of one school, the School of Computing and Information Sciences, and six academic departments: Biomedical Engineering, Civil and Environmental Engineering, Construction Management, Electrical and Computer Engineering, Industrial and Systems Engineering, and Mechanical and Materials Engineering. These academic departments offer programs leading to the Bachelor of Science, Master of Science and Doctor of Philosophy degrees.

The College has two institutes and thirteen centers supporting its academic and research programs. The institutes are the Advanced Materials Engineering Research Institute (AMERI) and the Telecommunications and Information Technology Institute (IT2). The centers are the Bioinformatics Research Group (BioRG), Center for Advanced Distributed Systems Engineering, Center for Advanced Technology and Education (CATE), Center for Diversity in Engineering and Computing (CDEC), Center for Emerging Technology for Advanced Information Processing and High-Confidence Systems, Center for the Study of Matter at Extreme Conditions (CeSMC), Engineering Manufacturing Center (EMC), Eugenio Pino and Family Global Entrepreneurship Center, Future Aerospace Science and Technology Center (FAST), High Performance Database Research Center and the Lehman Center for Transportation Research (LCTR). Two major university centers, the Applied Research Center (ARC) and International Hurricane Research Center (IHRC), work very closely with the College of Engineering and Computing with many joint appointments at the faculty level.

The College has created an open-access Motorola Nanofabrication Research Facility to conduct research in nanoelectronics, bio/nanosensors and nanomaterials. In addition, the FIU College of Engineering and Computing has developed many collaborations with the industry and hospitals in Florida and across the nation.

The programs of the College are directed towards the practical use of scientific, engineering, and technical principles to meet the objectives of industry, business, government and the public.

The College provides each student with the opportunity to develop a high level of technical skills and to obtain an education, which will prepare him or her for a rewarding career and personal growth.

Underlying the programs of the College is a recognition that the growing impact of technology upon the quality of life is increasing and that the proper application of technology is critical to meeting current and emerging human needs. The College faculty is actively engaged with business, industry and government. Faculty members also participate in a variety of basic and applied research projects in areas such as energy, transportation, solid waste disposal, biotechnology, biomedical devices and instrumentation, computer engineering, artificial intelligence, manufacturing, robotics telecommunications, micro-electronics, nano-electronics, nanotechnology, neuro-sciences/engineering, modeling and simulation, construction engineering, materials, structural systems, virtual prototyping, systems modeling, information technology, environmental sciences and engineering, image processing, engineering education, etc.

Doctor of Philosophy

The College offers Doctor of Philosophy degrees in Biomedical Engineering, Civil Engineering, Computer Science, Industrial and Systems Engineering, Electrical Engineering, Mechanical Engineering, and Materials Science and Engineering.

Areas of study in Biomedical Engineering include:

- Biomechanics, Biomaterials, and Medical Devices
- Bioinstrumentation, and Biomedical Image/Signal Processing
- Drug Delivery and Tissue Engineering
- Medical Physics and Nuclear Medicine
- Bio-nanotechnology and Systems Biology

Areas of study in Civil Engineering include:

- Transportation Engineering
- Environmental Sciences and Engineering
- Structural Engineering
- Geotechnical Engineering
- Construction Engineering and Management

Areas of study in Electrical Engineering include:

- Biomedical Sciences and Engineering
- Micro-Electronics, Nano-Electronics and Photonics
- Computer Engineering
- Systems and Controls
- Electromagnetics and Nanomagnetism
- Power Systems
- Telecommunications and Networking
- Digital Signal and Image Processing

Areas of study in Industrial and Systems Engineering are:

- Enterprise Systems Engineering
- Technology Entrepreneurship
- Information Systems for ISE

Areas of study in Mechanical and Materials Engineering include:

- Thermo/Fluids Sciences
- Biomedical Engineering
- Mechanics of Materials
- Nanostructured Materials
- Ceramics and Electronic Materials

- CAD/CAM
- Manufacturing
- Modeling and Simulation
- Nano Devices
- Applied Mechanics

Master of Science Degree Programs

The College offers Master of Science degrees in:

- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Management
- Electrical Engineering
- Engineering Management
- Environmental Engineering
- Environmental and Urban Systems
- Industrial and Systems Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Technology Management
- Telecommunications and Networking

Corporate and Global Programs

In partnership with national and international corporations and universities, the College of Engineering and Computing offers several of its graduate programs off-campus. These programs are offered at the partner's site both in the USA and abroad, particularly Latin America, the Caribbean and China.

Current Global Programs offered include MS in Engineering Management with specializations in Biomedical Technology, Information Systems, and Manufacturing, MS in Electrical Engineering, and BS in Computer Science. Negotiations are underway to offer MS in Technology Management, MS in Construction Management, and MS in Telecommunications and Networking.

Students enrolled in these programs are considered regular FIU students; hence, they must meet university admission requirements and are given full access to the university's facilities.

Distance Learning Education

Florida Engineering Education Delivery Systems (FEEDS) provides graduate engineering courses to place-bound professionals via CD, videotape, ITFS, and web-based asynchronous learning modules.

Research Centers and Institutes

Research spans from single discipline to multidisciplinary research in the College of Engineering and Computing. Thus, the College, through its research centers and institutes, has established many collaborative and cooperative partnerships with other units in the university as well as with local industry.

The research units involved in these efforts include:

- Advanced Materials Engineering Research Institute (AMERI)
- Applied Research Center (ARC)
- Bioinformatics Research Group (BioRG)
- Center for Advanced Distributed Systems Engineering
- Center for Advanced Technology and Education (CATE)

- Center for Diversity in Engineering (CDE)
- Center for Emerging Technology for Advanced Information Processing and High-Confidence Systems
- Center for the Study of Matter at Extreme Conditions (CeSMEC)
- Distributed Multimedia Information Systems Laboratory
- Engineering Manufacturing Center (EMC)
- Future Aerospace Science and Technology Center (FAST)
- High Performance Database Research Center
- International Hurricane Research Center (IHRC)
- Lehman Center for Transportation Research (LCTR)
- Motorola NanoFabrication Research Facility
- Telecommunications and Information Technology Institute (IT2).

Academic Support Services

The area of academic support services is responsible for the coordination of academic advising and student services the College of Engineering and Computing. Students are informed of educational opportunities such as scholarships, tuition waivers, and campus resources. It serves as a liaison between the academic departments and the student support services university wide and facilitates the registration process in order to make sure that the students adhere to the College guidelines.

Admission Requirements

Prospective students seeking a graduate degree in the College must satisfy all university admission requirements as well as the specific program requirements. Each department evaluates candidates for admission to its programs. Prospective students should refer to the appropriate section of the catalog for specific admission requirements and for contact information of the Graduate Programs Directors.

Biomedical Engineering: (305) 348-3019
Dr. Malek Adjouadi

Civil and Environmental Engineering: (305) 348-3821
Dr. Fang Zhao

Construction Management: (305) 348-3172
Dr. Syed Ahmed

Electrical and Computer Engineering: (305) 348-7566
Dr. Hao Zhu

Industrial and Systems Engineering: (305) 348-3491
Dr. Shih-Ming Lee, Engineering Management
Dr. Chin-Sheng Chen, Industrial and Systems Engineering

Mechanical and Materials Engineering: (305) 348-1701
Dr. Arvind Agarwal

School of Computing and Information Sciences
Dr. Xudong He (305) 348-1831
Telecommunications and Networking: (305) 348-3987
Dr. Nikki Pissinou

Admitted Student Procedures

A student who has been accepted to a degree program in the College must meet with the Department's Graduate Program Director prior to the enrollment in the first class.

Enrolled students must choose an advisor during their first semester in the program.

Continued contact (at least once per semester) with the advisor is required to review progress and select courses for each succeeding semester.

Courses taken without the required prerequisites and co-requisites, or without the consent of the advisor, will be dropped automatically before the end of the term, resulting in a grade of "DR" or "DF".

Scientific Laboratory Fees are assessed for certain courses where laboratory classes are part of the curriculum. Specific information on scientific laboratory fees may be obtained from the University Financial Services.

Fellowships, Assistantships, and Scholarships

The College of Engineering and Computing offers a variety of fellowships, assistantships, and scholarships to qualified students. These awards are highly competitive; hence, prospective students are urged to apply and submit all required records and scores as early as possible so they can be considered for these awards.

The amounts of these awards vary depending on the type of the award, but they may provide full tuition and a monthly stipend. Visit: www.eng.fiu.edu for additional information.

Policies, Requirements, and Regulations

The University, the University Graduate School, and the College of Engineering and Computing have a set of guidelines to protect the student's rights and to ensure a timely graduation. Students must become familiar with all University, the University Graduate School, and College's graduate procedures. These procedures are described in the University's Student Handbook, this catalog and at <http://gradschool.fiu.edu>.

The programs, policies, requirements and regulations listed in the catalog are continually subject to review to serve the needs of the University's various publics, and to respond to the mandates of the FIU Board of Trustees and the Florida Legislature. Changes may be made without advance notice.

Florida International University and the College adhere to opportunity practices, which conform to all laws against discrimination and are committed to non-discrimination with respect to race, color, creed, age, handicap, sex, marital status, or nationality. Additionally, the University is committed to the principle of taking positive steps necessary to achieve the equalization of educational and employment opportunities.

College of Engineering Dismissal Policy

A student who has been dismissed from the University for the first time may see the Graduate Program Director to begin the appeal procedure. The Director will determine if the student is eligible to appeal the dismissal or if there is a way to lift the dismissal. If the student is eligible, he or she must make an appointment to see the chairperson or associate chairperson. The student must bring a letter stating when he or she was dismissed the first time and what he or she is going to do to ensure that he or she is not dismissed a second time. If the chairperson determines that the student is worthy of reinstatement, he or she will prepare and sign a memo for the College Dean's consideration stating the conditions for the student to be reinstated. The student may be readmitted on academic probation upon the approval of the Dean of the University Graduate School. If the student does not meet

these conditions, he or she will be dismissed a second and final time from the program. The student must also sign an agreement stating that he or she understands that the department will not allow a second reinstatement if the student is dismissed again.

Any student who is dismissed a second time from FIU will not be readmitted under any circumstances. Only a first dismissal appeal is considered in the College of Engineering and Computing, a second dismissal appeal will not be accepted.

Department-Specific Information

For additional information refer to your selected department in this catalog, or call the graduate program director of each department. As listed above.

Other Important Contact Information

Website:	http://www.eng.fiu.edu	
Admissions:	http://gradschool.fiu.edu	(305) 348-7442
College of Engineering and Computing-		
Graduate Admissions		(305) 348-3526
Campus Resources		(305) 348-2973
Career Services		(305) 348-1281
Financial Aid		(305) 348-2489
University Graduate School		(305) 348-2455
International Students and Scholars		
Services		(305) 348-2421
Registrar's Office		(305) 348-2320
Scholarships		(305) 348-3526
Tuition Waivers		(305) 348-3526

Research, Development and Training Centers

Advanced Materials Engineering Research Institute (AMERI)

W. Kinzy Jones, *Director and Professor, Mechanical and Materials Engineering*

The Advanced Materials Engineering Research Institute provides an open access equipment infrastructure to support materials research and engineering over a broad range of technology and capabilities. The Institute provides analytical instrumentation, materials characterization, and process development laboratories to support faculty and industry in the development and characterization of new materials over the continuum from the nanoscale to bulk materials.

The Analytical Instrumentation Laboratory contains a field emission scanning electron microscope (FESEM), a 200 keV Transmission Electron Microscope (TEM), Atomic Force Microscope (AFM), X-ray diffraction, thermal (DSC, TGA, DMA, dilatometer) flush diffusion, and mechanical testing (uniaxial/biaxial Instron, creep). Process Development laboratories for ceramic processing (sol-gel, tape casting, milling), polymer processing, metal processing, and arc melting, thermal processing (air, vacuum, hydrogen, controlled atmosphere furnaces) are available to support faculty and student researchers.

The Institute consists of the Center for Nanofabrication and Devices, which is supported by a class 100 clean room and nanofabrication capabilities including e-beam lithography and optical photolithography. Fabrication of nano/micro electromechanical systems (N/MEMS) can be accomplished by a combination of nanolithography,

focused ion beam (FIB), micro machining, reactive ion etching, and thin film deposition by a variety of techniques (e-beam, sputtering, filament evaporation, cvd).

In addition to supporting research within the graduate program in materials science within the Department of Mechanical and Materials Engineering, the Institute supports faculty across all departments (physics, chemistry, geology, biology, electrical and computer engineering and biomedical engineering) in materials based research.

Research and Support Staff

W. Kinzy Jones, *Director and Professor, Mechanical and Materials Engineering*

Arvind Agarwal, *Assistant Professor, Mechanical and Materials Engineering*

Wonbong Choi, *Associate Professor, Mechanical and Materials Engineering*

Eric Crumpler, *Assistant Professor, Biomedical Engineering*

Norman Munroe, *Director, Applied Research Center and Associate Professor, Mechanical and Materials Engineering*

Roberto Panepucci, *Assistant Professor, Electrical and Computer Engineering*

Surendra Saxena, *Professor, Mechanical and Materials Engineering*

Yuriy Vlasov, *Assistant Professor, Electrical and Computer Engineering*

Kuang-Hsi Wu, *Professor, Mechanical and Materials Engineering*

Yesim Darici, *Associate Professor, Physics*

Watson Lees, *Associate Professor, Chemistry*

Kevin O'Shea, *Associate Professor, Chemistry*

Yanqing Liu, *Research Engineer*

Applied Research Center (ARC)

Fernando Miralles-Wilhelm, *Director of Research*

Rob Rose, *Associate Director for Waste Management*

Dave Roelant, *Associate Director for Defense Technologies*

Walter Tang, *Associate Director for Water*

Norman Munroe, *Associate Director for Energy*

George Philippidis, *Associate Director of Research Development*

Richard Burton, *Senior Program Manager*

ARC is an applied research and development (R&D) and technology deployment center that attracts funding not only for advancing academic research but also for supplying technical services. ARC's mission is to research, develop, and disseminate technologies and information for solving waste, defense, water, environmental and energy issues throughout the Western Hemisphere. To fulfill its mission, ARC conducts research that creates new knowledge and understanding of challenging scientific and engineering problems and develops innovative solutions to complex real-world issues. Furthermore, ARC acts as a bridge among government, business and academia for the transfer and utilization of knowledge and technologies that promote economic benefit, national security and sustainable development.

Waste Management – ARC provides a full spectrum of waste management research capabilities and services with experience supporting waste management and pollution prevention activities for numerous federal agencies and

private contractors. The Center's waste processing research program develops innovative, cost-effective technologies to help clients protect the environment from chemical pollutants generated as nuclear, industrial and agricultural waste. A significant portion of ARC's R&D activities focus on the safe and efficient remediation and deactivation of nuclear facilities; the characterization, management, and reduction of radioactive and hazardous waste; and the development and acquisition of environmental information technologies and systems. These technology development activities support U.S. Department of Energy-Environmental Management (DOE-EM) programs in various areas, such as: applied instrumentation and monitoring development; alternatives to nuclear waste management and disposition; attenuation of soil and groundwater contamination; environmental risk assessment and regulatory compliance research; as well as engineering studies for contaminated soil removal. Furthermore, these technology development activities are of significant interest to domestic and international commercial interests.

Fossil and Renewable Energy - The Country's new energy policy emphasizes the importance of combining cleaner use of fossil fuels with the development of alternative energy and the adoption of energy efficiency techniques. As a result, there is great demand for R&D covering the full spectrum of energy resources from natural gas to hydrogen utilization to fuel cell systems. Capitalizing on the national emphasis on clean and renewable energy, ARC has enhanced its research and technology development activities in various energy fields and has created an affiliate center, the Center for Energy and Technology of the Americas (CETA). ARC is developing technologies for clean and high-efficiency combustion systems that reduce air emissions, hydrogen production, purification, storage, cost-competitive high temperature PEM fuel cells and intermediate temperature solid oxide fuel cells serving as distributed energy systems, biomass thermochemical conversion, and energy-efficient and environmentally friendly heating and cooling systems.

Reliable and adequately priced energy supplies are some of the most important building blocks for economic growth, job creation and hemispheric security. Most scenarios for world, and regional, energy demand predict strong increases in the coming decades and will likely be met, if no measures or policies are put in place, by increased oil and gas production from countries in the Persian Gulf and the former Soviet Union. This reliance on supplies from the Middle East amplifies the political and economic risks the world faces today.

Fortunately, there is great potential for increased energy supplies from the Western Hemisphere that could help mitigate these risks. However, many hurdles must first be overcome such as inadequate regulatory and tax frameworks, rights of way and permitting, access to capital markets, environmental, political and social issues and the obvious, and very relevant, technological challenges. It is the goal of ARC and CETA to solve these challenges through its research and development initiatives.

Environmental Remediation – At ARC, our commitment to the environment spans a breadth of concerns, from soil and groundwater cleanup to the treatment and disposition of hazardous wastes, to the decontamination and decommissioning of surplus nuclear and industrial

facilities. We have performed over 200 projects worth over \$70M in the environmental arena.

The environmental program at ARC offers a full suite of environmental R&D and engineering support services covering the entire gamut, from fate and transport of contaminants in soil and groundwater to innovative engineering and technology development and assessment. ARC scientists and engineers have proven expertise in soil and water analysis; radioactive, hazardous, transuranic, high-level, and mixed waste treatment and disposal; decontamination of facilities; sensors and monitoring systems; and robotics. Our activities include: Contaminant fate and transport; assessment, remedial design and implementation; brownfields redevelopment; and long-term monitoring and stewardship.

Water Engineering – ARC provides unique capabilities in treatment, remediation, bioremediation, contaminant characterization, desalination and restoration. Secure and affordable water supplies are the building blocks for economic growth and competitiveness. The Applied Research Center has expertise, instrumentation, dedicated laboratories and pilot-scale facilities to tackle multidisciplinary problems in water treatment and purification processes, energy-efficient water cleanup, as well as surface water and groundwater pollution characterization. ARC conducts soil and water R&D for a variety of clients in the public and private sectors. Recent projects have focused on cutting-edge methods of employing natural processes to remove contamination from soil and water, automated sampling and remote monitoring systems for soil and groundwater, and information management to support informed decision making related to soil and water remediation technologies.

Through research supported by the U.S. Army, ARC is developing, fabricating and demonstrating mobile water purification systems in Latin America. Projects like this will assist the U.S. Army and other militaries in the Western Hemisphere in solving common problems related to the environment, energy and infrastructure. ARC is working on ways to provide safe drinking water, sanitation and water quality control in disaster areas.

Defense Technology – Researchers at the Applied Research Center have conducted research on many defense science and technology projects in the past decade. During the past three years, the Center has conducted research on twelve projects with an overall value of more than \$4M.

Clients such as the U.S. Air Force Office of Scientific Research (AFOSR), the Air Force Research Laboratory (AFRL), the Army Research Office (ARO), the Missile Defense Agency (MDA), Defense Advanced Research Projects Agency (DARPA), and the National Reconnaissance Office (NRO) have partnered with the Center on research. This research includes: integration of sensing and imaging systems into autonomous monitoring technologies, such as remote ground stations and unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs); Computational Fluid Dynamics analyses and experimental research for microchannel nozzle flow for space vehicle thrusters, hypersonic flow for Scramjets, model verification of ice formation on wings, and microchannel cooling of electronic components; experimental and theoretical research on absorption of infrared laser radiation by animal tissue as a surrogate for

human tissue; and numerical simulation of microbubble drag reduction for applications in naval ships and submarines.

ARC's capabilities in Defense Technology include: detection of radiological and chemical contaminants, remote monitoring, automated sampling, sensor testing and integration, imaging and sensor data collection and analysis, as well as modeling, simulation and visualization.

Doing Business with the Applied Research Center - ARC's employees are drawn from a wide segment of the commercial, government, and academic arenas to collectively utilize their combined experience and expertise to support the needs of ARC's clients. The Applied Research Center's operating philosophy recognizes and accommodates the critical performance characteristics of government and commercial activities, while exercising the benefit of its cost structure in a way that serves both client interests and those of the University and its students. The staff at ARC is fully engaged in the project and program activities assigned, as well as in mentoring students through internships that expose them to real-world experiences in their chosen fields.

The critical difference in the Applied Research Center's structure is the administrative processes and structures that have been put in place to serve its clients. The Center has executed work for federal agencies, state and local governments, and commercial entities, in large part through task-based contracts. For instance, in working with the U.S. Department of Defense, the Center has acted as both the prime contractor and as a sub-contractor/consultant for commercial partners, serving to streamline the process.

For more information on FIU's Applied Research Center, please visit www.arc.fiu.edu.

Bioinformatics Research Center (BioRG)

Giri Narasimhan, *Director and Professor, School of Computing and Information Sciences*

The mission of this research group is to work on problems from the fields of Bioinformatics and Biotechnology. The group's research projects include Pattern Discovery in sequences and structures, micro-array data analysis, primer design, probe design, phylogenetic analysis, image processing, image analysis, and more. The group builds on tools and techniques from Algorithms, Data Mining, Computational Statistics, Neural Networks, and Image Processing.

Center for Advanced Distributed Systems Engineering

Xudong He, *Director and Professor, School of Computing and Information Sciences*

Another of our research efforts is the Center for Advanced Distributed System Engineering (CADSE). Its mission is to establish a streamlined research, technology exploration and advanced training program in the field of distributed and Internet-based computing. The Center's R&D cover both theoretical and practical aspects of distributed software engineering, i.e. using engineering methods and technologies to tackle development problems of complex, reliable, and/or real-time distributed systems.

Center for Advanced Technology and Education (CATE)

Malek Adjouadi, *Director and Associate Professor, Joint Appointment with Biomedical Engineering and Electrical and Computer Engineering*

The vision of the NSF-CATE center at FIU is to foster a cross-disciplinary research and educational program as a catalyst for our undergraduates and graduates alike to develop their creative thinking by bringing in synergy the fields of applied information (signal and image) processing, neuroscience and assistive technology research. The CATE center focuses on new methodologies that (1) will enhance analysis and interpretation of signals and images in real-world applications; (2) will meet the impending needs in neuroscience as we elicit both the functional mapping of the brain, and the causality of key brain disorders; and (3) will result in new Human-Computer Interface (HCI) prototypes that address effectively the issue of *Universal Accessibility*, focusing on visual impairment and motor disability. Experimental results, as observed through clinical means or through system design evaluations and feasibility studies serve as means to redefine or re-evaluate our theoretical premises. The strong collaboration we have secured with our industry partners generates joint programs, student internships, clinical rotations, joint faculty appointments, shared use of modern equipment and infrastructure. The overall mission of the CATE Center is thus to create a unified infrastructure to synergize imaging/signal processing research, while fostering an environment that supports cross-disciplinary initiatives in order to produce new scientific specialties relying on combinations of specific technologies, medicine, and computation. This environment as set is apt to ensure the anticipated success in meeting our students' educational needs and research goals all the way to the Ph.D. level.

Research Areas

- Image and Signal Processing and Computer Vision
- Real-Time Assistive Systems and Human-Computer Interfaces
- Neuroscience: - EEG Brain Research – Functional Brain Mapping and Neurorehabilitation
- Biomedical Applications in Flow Cytometry and Confocal Microscopy
- Robotics for Motion Planning and Automated Guidance
- Parallel and Distributed Processing

Sponsors

- National Science Foundation (NSF)
- Office of Naval Research (ONR)
- Miami Children's Hospital
- Beckman-Coulter Inc.

Faculty

Malek Adjouadi, *Director and Associate Professor, Joint Appointment with Biomedical Engineering and Electrical and Computer Engineering*

Armando Barreto, *Director of the Digital Signal Processing Laboratory and Associate Professor, Joint Appointment with Biomedical Engineering and Electrical and Computer Engineering*

Ana Pasztor, *Professor, School of Computer Science*
liker Yaylali, *Courtesy Assistant Professor, Biomedical*

Engineering

Gustavo Roig, *Director, Center for Diversity in*

Engineering

Bob Coatie, *Director of FIU Office of Multicultural Services*

Research Partners

Prasanna Jayakar, *Director, Neuroscience Center, Miami Children's Hospital*

Arthur Karshmer, *Professor and Chair, Information Technology, University of South Florida*

Gualberto Cremades, *Assistant Professor at Barry University*

Rafael Delgado, *Executive Vice President and Director of Software Systems, Intelligent Hearing Systems, Miami*

Julie Jacko, *Director, Laboratory for Human-Computer Interaction, Georgia Tech University*

Gustavo Rey, *Neuropsychologist, Miami Children's Hospital*

Coordinator, Student Recruitment

Stephanie Strange, *College of Engineering and Computing, Assistant Director of Recruitment and Retention*

Research and Support Staff

Melvin Ayala, *Manager, CATE Center*

Ana Guzman, *Assistant Manager, CATE Center*

Javier Delgado, *Distributed System Manager*

Christy Bedia and Mouncef Lahlou, *Webmasters*

Doctoral Students:

Mildred Zabawa, Mercedes Cabrerizo, Danmary Sanchez, Maria Tito, Anaelis Sesin, Ann Zong, Mourad Michel, Marc Rossman, Feng Gui, Melvin Ayala, Guillen Benavides Magno, You Xiaozhen, and Lu Wang

Master's Students:

Eddy Ruiz, Patrice Hernandez, Mathew Whittington, Nina Teng, Javier Delgado, Ana Guzman, Raj Prakash, Orville Anderson, Alejandro Simon, Daniel Sanchez, Adrian Marrero, and Luis Gonzalez

Industry Partners

- The Brain Institute Miami Children's Hospital
- The Ware Foundation
- Beckman-Coulter Inc.
- Intelligent Hearing Systems
- American Epilepsy Society

Related Laboratories and Facilities of the CATE

Infrastructure

With the NSF and ONR continued support, the CATE center has helped in establishing the following laboratories: Interactive Design Laboratory for Undergraduates. *Funded by NSF-MII and Matching funds from the FIU Division of Sponsored Research and Training (DSRT)* – Housed with the ECE department facilities.

1. EEG Brain Research Laboratory. *Funded by NSF-MRI* – Housed within the Neuroscience Center at Miami Children's Hospital.
2. Web-Design Laboratory. *Funded jointly by ONR and NSF-MII* – Housed within the Engineering Information Center Facility.
3. The Computer Training Laboratory – Housed in Graham Center with the Office of Multicultural Services.

Center for Diversity in Engineering and Computing

Gustavo Roig, *Director and Professor, Electrical and Computer Engineering*

Berrin Tansel, *Associate Director*

Francisco Fins, *Program Coordinator*

Jorge Nosti, *Program Coordinator*

Beatriz Oria, *Program Specialist*

Rebecca Ramos, *Program Coordinator*

Katina Vallina, *Program Specialist*

South Florida's distinction as a multi-cultured, multi-lingual region has long been a diverse source of talent for FIU, particularly in the College of Engineering and Computing. In response to the challenge of attracting this diverse community to science and engineering, the College of Engineering and Computing has created a special center for Diversity in Engineering.

By building sound foundations in sciences and mathematics, the Center helps to prepare young students to deal with the rigors of higher-level education, and Engineering in particular. Currently the Center has several on-going programs:

Florida Action for Minorities in Engineering (FLAME)

This is a cooperative program between Miami Coral Park Senior High School and Florida International University aimed at introducing the profession of engineering to high school students, and to identify, select, enroll and retain minority students in the engineering field. Senior High School students also registered for dual enrollment classes at FIU.

Florida/Georgia Louis Stokes Alliance for Minority Participation (FGLSAMP)

This is a National Science Foundation funded program in association with Florida Agricultural and Mechanical University (FAMU), the leading institution. This program focuses on engineering, math chemistry, biology, physics, and computer science undergraduate students. Participants receive scholarships, during the entire academic year based on high GPA and being a full time student. Opportunities for summer internships are available.

Junior Engineering Technical Society (JETS) (TEAMS)

The JETS Test of Engineering Aptitude, Mathematics and Science (TEAMS) is an academic problem-solving competition, that serves all public and private high schools within our geographical area with focus on a one day activity at Florida International University.

(NEDC)

The National Engineering Design Challenge (NEDC) is a high school engineering-based program in which teams from the state of Florida attend our university to demonstrate a working solution to a societal need. The focus of this competition is to involve students in exciting learning experiences and to encourage young people to pursue engineering and technology careers.

(UNITE)

A collaborative effort between Florida International University, the U.S. Army, and the Junior Engineering Technical Society. The JETS UNITE Program's goal is to

increase the number of underrepresented students in the field of engineering, to improve the performance of the students in their SAT/ACT exams, develop resourceful, self-motivated well rounded graduates who will be responsible and well adjusted citizens.

ENLACE/MIAMI The Children Trust, this program is funded by The Children Trust and provide after school and summer programs for 650 children (ages 7-17) residing in the Sweetwater, Doral and West Kendall areas. The after school program will offer literacy support through individualized software-based reading intervention, social skills development, and health fitness education. The summer program will offer students the unique opportunity to attend classes on a university campus.

GEAR UP Homestead

The GEAR UP Homestead project assists a maximum number of students living within the Homestead area achieve a college career, while implementing a self-sustaining system to continuously duplicate the process. Homestead Florida is faced with serious issues that require assistance from other communities, such as poverty, lack of jobs, and problems related to disadvantaged societies. Fortunately, with the development of the GEAR UP Homestead Partnership Plan as well as the aide to public, private and governmental institutions, the targeted cohort students of the Homestead area will be able to reach their maximum potential through a college education. Partners such as the US Department of Education will supply a vast portion of the resources needed to perform this project. Aspira, a non-profit organization, is dedicated to creating leadership through education for those who are disenfranchised, or socially and economically disadvantaged. Another important team player is the Non-Violence Program of Miami, contributing the idea that knowledge is the best weapon against violence, and motivating young people to engage in positive action to make our communities safer.

The GEAR UP project is made of several components that contribute to a wider reach into insuring that a maximum result is gained by everyone involved. Among these components are in-school tutoring and assistance programs. The Summer Enrichment Program offers an alternative way of spending those long summer days. The teacher training Development Program, as well as PRISM (Program of Industry Supported Mentorship's) enrich teachers with the right preparation to confront all kinds of situations. Perhaps the most important aspect that will contribute to the outcome of the child is the parental influence and family involvement into their success. In a fast-paced and demanding society, this is often a difficult threshold to cross. Parent Involvement Program (PIP) encourages parents to have a positive active role in their child's every day awareness of the future. Education begins in the home and ends in the child's decision to instill a safe and productive future. The powerful drive needed to assist the process of growth and awareness is the very reason for the existence of programs such as GEAR UP.

The mission of the partnership addresses the needs of the student by bringing the necessary awareness and readiness for a successful college education. To succeed such advancement, GEAR UP has established a mission, goals, objectives and outcomes that will serve as the foundation for a successful program. The dedication of the

partnership as well as a Vision Statement that clearly unifies the community to serve its future provides an inspiration: that the education of today paves the road towards tomorrow's success.

Center of Emerging Technology for Advanced Information Processing and High-Confidence Systems (CREST)

Yi Deng, *Director, Dean and Professor, School of Computing and Information Sciences*

The CREST center focuses on the following research areas: High-confidence reactive software systems, multidimensional-multimodal data modeling and query research, assistive technology research based on the design and development of real-time assistive systems, and advanced information processing with neuroscience applications. This multidisciplinary research and educational center serves as a resource for the education of underrepresented minority students as well as a driving force to increase diversity in graduate education, especially at the Ph.D. level in computer science and engineering.

Center for the Study of Matters at Extreme Conditions (CeSMEC)

Surendra Saxena, *Director and Professor, Mechanical and Materials Engineering*

CeSMEC's mission is to study the behavior of materials at high pressures and temperatures. The range of research activities includes the study of planetary interiors and of matter at extreme industrial conditions. CeSMEC is one of few facilities in the country where pressures are created to many million atmospheres and temperatures to several thousand degrees; the material is studied under such condition with x-ray and electroscopic techniques.

All materials are subject to three fundamental variables – the variables of temperatures, chemical composition, and pressure. Modern science has vigorously used only the first two variables in exploring nature and creating several amenities of modern civilization. Pressure, the third fundamental variable altering all states of matter, has been for years a relatively minor esoteric sub-field. The creation of this center is providing FIU's graduate students and faculty the opportunity to perform fundamental and applied research in high-pressure physics, high-pressure chemistry, and materials science. The center is raising the infrastructure at FIU to the level required to initiate world-class research in an emerging area of science and engineering.

Recent additions of a Hydrogen-Storage Materials Research Facility and a Microplasma CVD Diamond Growing Laboratory, researcher can perform synthesis of novel materials for a variety of industrial applications.

Distributed Multimedia Information Systems Laboratory

Shu-Ching Chen, *Director and Associate Professor, School of Computing and Information Sciences*

Another of our research efforts is the Distributed Multimedia Information System Laboratory (DMIS). Its mission is to conduct leading edge research in multimedia database systems, data mining, networking and wireless,

GIS and Intelligent Transportation Systems. Other research areas of this effort include Multimedia Communications and Networking, Digital Library, 3D Animation, and Distributed Computing.

Division of Corporate and Global Programs

Jainendra Nvalakha, *Director and Professor, School of Computing and Information Sciences*

The **Division of Corporate and Global Programs (DCGP)** is the organization unit within **-CGP** develops, promotes and manages academic programs offered under the rubric of Executive Engineering Education in the **College of Engineering and Computing** that is responsible for managing the engineering programs offered under the rubric of **Executive Engineering Education**. These programs fall in the following categories:

The DCGP is managed by a director reporting to the Dean of Engineering & Computing. The director and staff of the DCGP work with department chairs, center directors and faculty members to identify corporate and global partners; develop, promote and manage Executive Engineering Programs; and identify new opportunities and new markets for all programs that are offered by the College of Engineering and Computing. Various categories of programs in which the DCGP-division is involved include the following:

Global Programs

The global programs focus on the demonstrated education and training needs of selected industrial sector(s) in the host country. These programs are offered in collaboration with a sponsor which is a reputed university or institution that can support the delivery of the program by providing appropriate infrastructure facilities like classrooms, library and computer laboratories. The programs are designed in consultation with the faculty of the sponsor and the industry representatives in the host country. The goal of the global programs is to complement the existing academic programs offered by the sponsoring institution.

Global Programs

- Corporate Programs
- Certificate Programs
- Weekend Programs
- International Student Transfer Programs

Global programs are offered in a foreign country and focus on the demonstrated education and training needs of selected industrial sector(s) in the host country. The programs are offered in collaboration with a local institution that supports the delivery of the program by providing appropriate infrastructure facilities like classrooms, library and computer laboratories.

All participants in the program proceed as a cohort through a lock-step curriculum of the selected courses. The local faculty from the host country is also involved in teaching to enrich the program by integrating the economic, cultural, social, political and legal issues of the host country in the curriculum.

Corporate Programs

The Corporate Programs are designed for an individual corporation leading to an academic degree, certificate or short-term executive development program. The

programs are delivered on site and the program delivery is supported by providing infrastructure facilities. Corporate programs are designed to meet the specific educational and training needs of the corporate clients.

Engineering Information Center (EIC)

Hernan Bormey, *Director*

Create a technology that will help save lives or create your own website, simulate an electronic circuit, design a bridge, or just browse the Internet. The possibilities are endless at Engineering Information Center

EIC helps faculty, scientists, researchers, and students to conduct cutting edge research and work on system designs, networking, scientific visualization, 3D Modeling, simulations, virtual reality, computer animation, and other computer and software applications.

The Center manages an array of Novell, Windows, and UNIX network servers that provide faculty, staff and students with the capacity to share valuable resources; therefore, fostering an atmosphere where collaboration and instruction grow with a synergy that is unique. Beyond the college community, EIC participates in sponsoring special outreach programs for the Miami-Dade County Public Schools by exposing young minds to latest technologies.

EIC is also home to The Graphic Simulation Laboratory with focus on Scientific Visualization, 3D Computer Modeling, and Virtual Reality, which have helped researchers to develop a wide array of technologies, strategies, and information designs. GSL has collaborated with NASA, The Center for Super Computing Applications, National Science Foundation, Computational Science Institute, Shodor Organization, Macromedia, and Kellógg Foundation, just to mention a few. From hardware to software support to 3D modeling of a heart valve, EIC delivers exceptional services with a personal touch.

Engineering Manufacturing Center (EMC)

Shih-ming Lee, *Director, Chairperson and Associate*

Professor, Industrial and Systems Engineering

Mario Sanchez, *Senior Engineer and Manager*

Richard Zicarelli, *Coordinator*

The objective of the Engineering Manufacturing Center (EMC) is to prepare manufacturing engineers for an era where enterprises will be mostly information-based and international in nature. It is divided into major labs which provide a seamless integration of computerized engineering tools for design (CAD), manufacturing (CAM), inspection and rapid prototyping (RP) for mechanical and electronic product design and fabrication.

The *Rapid Product Realization Laboratory* consists of a design front end, an RP center for mechanical/electrical components, and computer driven manufacturing and inspection systems. The design center enables design with Pro/Engineer and analysis by finite element packages. The RP facility utilizes three different techniques: stereolithography, fused deposition modeling and laminated object manufacturing. Mechanical parts are fabricated with a Vertical Machining Center, a CNC turning center, an EDM machine and a traveling wire EDM. Production capabilities are enhanced by an injection molding machine and dimensional analysis, verification

and reverse engineering capabilities are provided by a coordinate measuring machine.

EMC regularly schedules training courses in Pro/Engineer and other industry-specific software at substantial discounts. Course instructors typically come from industry, bringing real-life hands-on experiences to the class. Companies served by EMC range from entrepreneurial to the well-established, some of which include aerospace, automotive, marine, medical and consumer product manufacturers. EMC's resources and technical expertise in specialty areas, such as rapid product design/development and manufacturing are available to the industrial community. For more information, call the EMC at (305) 348-6557, Mario Sanchez (sanche@m.fiu.edu), or refer to our website at www.eng.fiu.edu/MRC.

Eugenio Pino and Family Global Entrepreneurship

Alan L. Carsud, *Executive Director*

The Eugenio Pino and Family Global Entrepreneurship Center at Florida International University, founded in 2003 with a grant from the Kauffman Foundation of Kansas City, facilitates all entrepreneurial activities at FIU. The Center provides campus-wide awareness of entrepreneurship as an approach to life that enhances and transcends traditional academic experiences. It is woven into the fabric of the university through entrepreneurial activities and courses across the university. The multi-dimensional nature of the Center allows it to address the unique entrepreneurial needs of one of the nation's largest ethnically diverse academic institutions, located in one of America's most entrepreneurial and dynamic international cities, Miami. In 2004 the Center was named for Eugenio Pino a Cuban-American serial entrepreneur and his family.

FEEDS Programs

Mercy Rueda Schott, *Director*

The Florida Engineering Education Delivery System (FEEDS) is a statewide distance learning system providing access to graduate and undergraduate level engineering courses and programs to individual students anywhere and anytime, whether it is at home or the workplace. Courses are delivered through one or more of the following methods: CD-Rom, streaming video over the Internet; and fully on-line.

FEEDS offers engineering students and professionals with work and family responsibilities the flexibility to take courses around their busy schedules. It also provides convenience to those who are not within driving distance of an academic institution. It allows them to continue their professional development, which plays an important role in the growth of high technology industries.

Currently, students can select the necessary courses from FIU via distance learning to obtain a Master's degree in Civil Engineering, Environmental Engineering, Construction Management and Engineering Management and a bachelor's degree in Construction Management.

A student taking a course through FEEDS must meet the same requirements as the student on campus and will earn the same credit as if he/she were to attend classes on campus. A student need not be enrolled in a graduate or undergraduate degree program in order to take a

course. However, a student who intends to seek admission to a program should be aware that no more than six (6) graduate or fifteen (15) undergraduate credits are allowed to be transferred into a program.

Future Aerospace Science and Technology Center for Space Cryoelectronics (FAST)

Grover Larkins, *Director and Professor, Electrical and Computer Engineering*

FAST-SC is one of six centers created by the Air Force as part of its minority university enhancement program, providing research experience opportunities for undergraduate and graduate students.

The FAST Center evaluates novel applications of space-based cryo-electronics, initially studying new systems for reduction in losses of feed and phase shift networks in phased array transmitter systems. This involves development of low-loss active integrated low-noise phased array or post-processed phased array down-converter receiving systems, high gain-low loss, low noise micro and millimeter wave circuits and systems for space based applications. Of particular interest is the ability to design and fabricate integrated systems which could be used as "steerable" phased array antennas with, frequency-agility.

Current research is focused on issues relating to: Superconducting Micro-Electro-Mechanically switched filters and phase shifters.

High Performance Database Research Center

Naphtali Rische, *Director and Professor, School of Computing and Information Sciences*

One of our research efforts is the High-Performance Database Research Center (HPDRC). HPDRC conducts research on such theoretical and applied issues as Internet-distributed heterogeneous databases, database design methodologies, database design tools, information analysis, multi-media databases, database languages, data compression, spatial databases, and data visualization. The Center also designs specific database systems for highly complex applications.

International Hurricane Research Center (IHRC)

Stephen P. Leatherman, *Director*

Kegi Zhang, *Laboratory for Coastal Research, Co-Director*

Shahid Hamid, *Laboratory for Insurance, Financial and Economic Research, Director*

Arindam Chowdhury, *Laboratory for Wind Engineering Research, Director, and Assistant Professor, Civil and Environmental Engineering*

Dario Moreno, *Laboratory for Social Science Research, Director*

Florida International University's International Hurricane Center has officially changed its name to the International Hurricane Research Center (IHRC). The change was made to better reflect the Center's research initiatives.

Serving the state of Florida, the IHRC is a Type I interdisciplinary research center focused on the mitigation

of hurricane damage to people, the economy, and the built and natural environments. This designation makes the IHRC Florida's official hurricane research center for 11 universities comprising the state university system.

The citizens of the U.S. East and Gulf Coasts and Caribbean Islands are severely impacted by hurricanes, and IHRC promotes an interdisciplinary, large-scale disaster research agenda to address this vulnerability. Disciplines such as architecture, business, economics, engineering, finance, geosciences, insurance, political science, sociology, and urban planning are involved in a long-term, integrated research program that helps Florida, the nation, and its regional neighbors to mitigate hurricane exposure.

The Center developed as a result of a public-private partnership between the We Will Rebuild Foundation, an organization formed to spearhead the rebuilding of Dade County in 1992 after Hurricane Andrew, and FIU. The IHRC works in conjunction with the National Hurricane Center, which is also located at the FIU University Park Campus in West Miami-Dade.

Lehman Center for Transportation Research (LCTR)

L. David Shen, P.E., T.E. *Director and Professor, Civil and Environmental Engineering*

Fang Zhao, P.E. *Deputy Director and Professor, Civil and Environmental Engineering*

Sylvan C. Jolibois, Jr., *Deputy Director and Associate Professor, Civil and Environmental Engineering*

Albert Gan, *Deputy Director and Associate Professor, Civil and Environmental Engineering*

The Lehman Center for Transportation Research (LCTR) at Florida International University was established in 1993 in honor of Congressman Bill Lehman and his tireless efforts to make South Florida a better place for all of us. The center's vision is to become a strong 'state-of-the-art' transportation research and training facility. LCTR is committed to serve and benefit our society by conducting research to improve mobility, hence the quality of life issues, develop partnerships in the transportation industry, and educate a multidisciplinary workforce to plan, manage and implement transportation systems.

Faculty, staff and students at LCTR are involved in research related to the design and operation of transportation systems, public policy, air pollution, and the application of geographic information systems and other advanced technologies such as artificial neural networks and scientific visualization in transportation. Future plans include networking with the public and private industry to collaborate on transportation related research. In addition, applied research will be conducted on, but not limited to intelligent vehicle and highway systems.

Motorola Nanofabrication Research Facility

W. Kinzy Jones, *Director and Professor, Mechanical and Materials Engineering*

Neal Ricks, *Lab Manager*

The first centralized facility of its kind in Florida, the Motorola Nanofabrication Research Facility is an open-access initiative in support of nano-scale devices, systems and materials research that encompasses a broad range

of technologies and capabilities. The facility provides nanofabrication, analytical instrumentation, materials characterization and process-development laboratories for students, faculty and industrial researchers. This \$15 million Research Facility is an integral part of the Advanced Materials Engineering Research Institute (AMERI), FIU's broader materials research program.

Harnessing the synergy inherent in the study and development of nanoscale technologies, the facility boasts:

- Specialized equipment required to develop new and novel fabrication techniques unique to the creation of functional materials and devices that are no greater than 100 nanometers (1,000 times smaller than the diameter of a human hair);
- A full complement of standard semiconductor processing equipment to leverage the capabilities of robust and proven techniques; and
- State-of-the-art analytical tools to study, and characterize these nano-sized devices, as well as the materials and processes used to make them.

The Nanotechnology Faculty Team

Arvind Agarwal, Assistant Professor, Mechanical and Materials Engineering

Wonbong Choi, Associate Professor, Mechanical and Materials Engineering

Roman Chomko, Assistant Research Professor, Electrical and Computer Engineering

Eric Crumpler, Assistant Professor, Biomedical Engineering

George Dulikravich, Professor and Chair, Mechanical and Materials Engineering

Sukky Jun, Assistant Professor, Mechanical and Materials Engineering

Sakhrat Khizroev, Associate Professor, Electrical and Computer Engineering

Grover Larkins, Associate Professor, Electrical and Computer Engineering

Watson Lees, Associate Professor, Chemistry

Wenzhi Li, Research Faculty, Chemistry

Anthony McGoron, Assistant Professor, Biomedical Engineering

Roberto Panepucci, Assistant Professor, Electrical and Computer Engineering

Surendra Saxena, Professor, Mechanical and Materials Engineering

Frank Urban, Associate Professor, Electrical and Computer Engineering

Yuriy Vlasov, Assistant Professor, Electrical and Computer Engineering

Telecommunications and Information Technology Institute

Niki Pissinou, Director and Professor, Electrical and Computer Engineering

Florida International University (FIU) recognizes the need to nurture highly trained personnel for the nation's industry and business, develop research to support the rapidly expanding high-tech industry and become proactive in technology transfer. Thus, ensuring continued economic growth and prosperity in the region. In order to fully meet today's technological demands, FIU has established the Telecommunications and Information Technology Institute (IT²). IT² promotes advanced multidisciplinary education

and research focused on telecommunications and information technologies. IT²'s mission is to:

- 1) Deliver high quality telecommunications and information technology education and training.
- 2) Conduct and promote research to enhance Florida's role as a leader in telecommunications and information technology.
- 3) Offer training that is needed to foster business development and workforce preparedness.
- 4) Promote technology transfer to enhance the enabling technologies of the telecommunication and information technology industries.

In fulfilling its mission, IT² promotes multidisciplinary collaboration and serves as the catalyst to promote intellectual cross-fertilization among disciplines. This effort results in the synergistic enhancement of teaching and research, so critical in the telecommunications and information technology fields, where disciplinary barriers are falling and lines are blurred. An objective of the Institute is to infuse telecommunications and information technology content into the curriculum at all appropriate levels. To fill the urgent demand of industry, the institute is developing interdisciplinary telecommunication programs that provide certificate programs, Bachelors, Masters and Ph.D. degrees.

IT² constitutes an infrastructure that is viable for cutting edge research activities. Researchers at the institute conduct funded research and development targeted at solving complex problems conducive to the early identification of high impact opportunities. Of particular importance to the institute's research efforts is the emerging global wireless, optical and personal communications infrastructure and the ability to represent, store and access information to perform a variety of information related tasks. To provide an effective forum for original research results and to foster communication among researchers, industry leaders can collaborate on education, training, and re-engineering the telecommunications workforce of the future. The alliance provides effective ways to educate the workforce of the 21st century. In accordance, the institute provides technical assistance and applied research services to transfer acquired knowledge and technologies to the commercial sector. The IT² team can work with industrial organizations to tap into some technological innovations that drive the industry to its strategic advantage.

For more information, contact Dr. Niki Pissinou, the director of the Telecommunications and Information Technology Institute, at (305) 348-3987 or visit our Website at www.it2.fiu.edu.

Core Faculty

Niki Pissinou, Director and Professor

Kia Makki, Lucent Technology Professor

Hao Zhu, Assistant Professor

Jian Wang, Assistant Professor

Affiliated and Research Faculty

Kang Yen, Chairperson and Professor, Electrical and Computer Engineering

Wannava Subbarao, Professor, Electrical and Computer Engineering

Tadeuz Babji, Professor, Electrical and Computer Engineering

Jean Andrian, Associate Professor, Electrical and Computer Engineering

Shih-Ming Lee, *Chairperson and Associate Professor,
Industrial and Systems Engineering*

Ronald Giachetti, *Associate Professor, Industrial and
Systems Engineering*

Marc Resnick, *Associate Professor, Industrial and
Systems Engineering*

Osama Mohammed, *Associate Chairperson and
Professor, Electrical and Computer Engineering*

Juan Polanco, *Research Faculty*

Lance Hester, *Research Faculty*

S. Huang, *Research Faculty*

Biomedical Engineering

Anthony McGoron, *Acting Chair, Associate Professor and Undergraduate Program Director*

Malek Adjouadi, *Professor and Graduate Program Director*

Armando Barreto, *Associate Professor*

Michael Christie, *Instructor and Undergraduate Advisor*

Michael Brown, *Instructor*

James Byrne, *Laboratory Instructor*

Anuradha Godavarty, *Assistant Professor*

Prasanna Jayakar, *Research Professor, Miami Children's Hospital*

Chenzhong Li, *Assistant Professor*

Wei-Chiang Lin, *Assistant Professor*

Nikolaos Tsoukias, *Assistant Professor*

The mission of the Department of Biomedical Engineering is to integrate academia, clinical medicine, and the biomedical industry

- In the education and training of the next generation of biomedical engineers;
- In research and development activities leading to innovations in medical technology;
- In transfer of that medical technology to commercialization and clinical implementation; and
- In the continuing development of biomedical engineering as a profession, its impact on the delivery of health care, and its role in the sustainability and growth of the local and national economies.

The objectives of the graduate Biomedical Engineering Program at FIU are the following:

1. Provide highly trained professionals in Biomedical Engineering to serve in academic institutions, government agencies, research laboratories, and manufacturing and service industries.
2. Provide "place-bound" students (many of them are minorities) a great opportunity for advanced graduate studies;
3. Supply additional minority doctoral graduates to the Biomedical Engineering field, where minorities are highly underrepresented;
4. Encourage FIU graduates to extend their careers into research and teaching;
5. Enhance the reputation of FIU through increased research and publications; and
6. Help attract more biotechnology industries to Miami-Dade County and South Florida.

Master of Science in Biomedical Engineering

The Department of Biomedical Engineering at Florida International University offers Research and Professional tracks for the Master's Degree. In addition, the Department offers accelerated combined BS/MS and certificate programs. These programs provide an interdisciplinary education intended to prepare the student for professional practice in Biomedical Engineering.

All work counted for the Master's degree must be completed during the six years immediately following the date of admission to the graduate program.

Admission Requirements

The following is in addition to the University's graduate admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, the physical/life sciences, computer science, or mathematics from an accredited institution, or in the case of foreign students, from an institution recognized in its own country as preparing students for further study at the graduate level.
2. An applicant must have achieved a "B" average in upper level undergraduate work and a combined score of 1000 on the Graduate Record Examination with the following minimum scores on the individual components: verbal ≥ 350 , and quantitative ≥ 650 .
3. Applicants who have not satisfied the above will be evaluated for probationary or waiver admission.
4. In addition to the above criteria, International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
5. The GPA, GRE, and TOEFL scores specified above are to be considered minimum requirements for admission. Applicants from science and engineering areas other than biomedical engineering will be expected to complete undergraduate courses selected to prepare them for graduate courses in their area of interest. Full admission into the graduate program requires the completion of these background courses with no grades below "C" and a grade point average of 3.0 or better.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Department.
2. Certification provided by the Department Chair, College Dean, and University Graduate School that all degree requirements have been met.
3. Meet the undergraduate deficiencies, if any existed in the student's program, as additional courses toward the degree.
4. Complete the required semester hours of graduate level credit (not more than six graduate semester hours with a grade of "B" or higher can be transferred from other accredited institutions).
5. Successful defense of an acceptable graduate thesis if required of the program.
6. Students must maintain an overall GPA of 3.0. No grade below a "C" will be accepted in a graduate program. In the event that a student is placed on probationary status, he or she must obtain a directed program from his or her advisor and approved by the Graduate Program Director prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.
7. Comply with all University policies and regulations.

Five Year Accelerated Combined BS/MS Degree Programs

This five-year program seamlessly combines a baccalaureate degree in biomedical, mechanical or electrical engineering with the Master's in biomedical

engineering. Students, who pursue a BS degree and are in their first semester of the senior year, with at least a 3.25 GPA on both overall and upper division courses, may apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the MS program. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to 9 credit hours of BME graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. However, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of B is required. All double counted courses must be at 5000 level or higher. Students enrolled in the program may count up to 9 credit hours of BME graduate courses toward the elective engineering BS requirements as well as toward the MS degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Professional Track

This track is tailored for the engineer currently practicing in the biomedical industry. A student shall complete 27 credit hours of course work and a 3 credit hour capstone project. The courses are organized into three core areas: Life Sciences, Engineering Management, and Biomedical Engineering. The student will choose three courses from the Engineering Management core based on personal training requirements. The biomedical engineering core includes a two course sequence in one of the three primary technical areas for industry: manufacturing, instrumentation, or materials. While the degree is structured as a non-thesis program, students will be required to conduct an industrial project (3 credit hours). The project will include contemporary topics and trends in biomedical engineering technology development and will require a formal report and presentation upon completion.

Early in the program (before the end of the second term) the student and advisor will complete a study plan that specifies the courses that will comprise the program. A maximum of three credits of independent study beyond the MS project may be included in a study plan.

Professional track students are required to take an oral final examination dealing with the objectives of their study plan. The student will briefly summarize the project report (20 minutes) as a part of the exam. The examining committee will include a minimum of three faculty members, at least two of whom have appointments in the Department.

Course Requirements

Life Science Core

PCB 4524	Molecular Biology	3
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Engineering Management Core

Select three of the following courses with advisor approval:

STA 5676	Reliability Engineering	3
EIN 5226	Total Quality Management for Engineers	3
EIN 5322	Engineering Management	3
ACG 6026	Accounting for Managers	3
MAN 6245	Organizational Behavior	3
MAR 6805	Marketing Management	3

Biomedical Engineering Core

Biomedical Engineering Electives	6
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BME 6907	Master's Project	3
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An additional six credit hours of core courses must be taken depending on the area of interest:

Design and Manufacturing

BME 4800	Design of Biomedical Systems and Devices*	3
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Manufacturing Elective	3
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Instrumentation

ELR 4202C	Medical Instrumentation*	4
Instrumentation Elective	2	

Materials

BME 5105	Biomaterials Science	3
Materials Elective	3	

*Note that if these courses were taken and credited towards the undergraduate degree they must be replaced by another elective in consultation with an advisor.

Research Track

The research track is a more traditional program geared to prepare the graduate for further graduate study or a career in biomedical research. A student shall complete a minimum of 24 semester credit hours of course work, a minimum of 6 semester credit hours of Master's Thesis, and one semester of the Biomedical Engineering Seminar. Early in the program (before the end of the second term) the student and advisor will complete a study plan that specifies the courses that will comprise the program. A maximum of three credits of independent study other than the MS thesis may be included in a study plan.

All students in the research track are required to complete a thesis research project under the supervision of an advisor and committee. When the thesis research is completed, the student should schedule a defense with an examining committee appointed through the Graduate School consisting of at least three graduate faculty members (at least two of whom have appointments in the Department). The thesis, with an approval cover letter from the advisor, should be given to the examining committee for review not less than four weeks before the scheduled defense. The candidate should prepare to summarize the thesis in the manner of a technical paper using appropriate visual aids in 40 minutes or less.

Following the presentation, the candidate will answer questions related to the work from the audience and/or the committee. At the conclusion of the defense, the committee will agree upon the outcome pass or fail and report the results to the Graduate School. Following the exam the student will implement the committee's suggestions for improving the draft document. Each committee member must sign the approval form in the final document. Copies of the approved thesis must be provided to the advisor, Department, and the University Graduate School. Students should become familiar with the University Graduate School's regulations and deadlines available on line at <http://gradschool.fiu.edu>.

Course Requirements

Biomedical Engineering Core

All students in the Research Track must take two courses in one specialty area, and one course in each of two other specialty areas. The current specialty areas are: 1) Biomechanics, biomaterials, medical devices, and bionanotechnology; 2) Bioinstrumentation and biosignal processing; 3) Drug delivery, tissue engineering, systems biology; and 4) Medical and molecular imaging and biomedical optics.

BME 6970	Master's Thesis	6
BME 6936	Biomedical Engineering Seminar	0

Mathematics Core

STA 5206	Design of Experiments	3
or		
STA 6176	Biostatistics	3
BME 6705	Nonlinear Systems Applications in Life Science	3

Life Science Core

PCB 6027	Molecular and Cellular Biology II	3
Life Science Elective		3

Doctor of Philosophy in Biomedical Engineering

The PhD program in Biomedical Engineering prepares graduates for industrial or academic research in one (or more) of four areas of specialization: 1) Biomechanics, biomaterials, medical devices and bionanotechnology; 2) Bioinstrumentation and biosignal processing; 3) Drug delivery, tissue engineering, and systems biology; and 4) Medical and molecular imaging and biomedical optics. To increase the quality of the educational experience, clinical and industrial practice is integrated into the academic programs through the Biomedical Engineering Partnership Program. Students gain valuable exposure to clinical practice and research, and acquire real experience in the practice of engineering, product development, and commercialization. Semester-long clinical research experiences are provided, and students have the opportunity to participate in clinical/industrial R&D projects.

Admission Requirements

A prospective student must meet all admission requirements stipulated in the University's Graduate Policies and Procedures. In addition, the requirements for admission to the doctoral program in Biomedical Engineering are stated as follows:

1. A student seeking admission to the doctoral program must have a Bachelor's or Master's degree in Biomedical Engineering, or other closely related field from an accredited institution.

2. A GPA of at least 3.0/4.0 in the upper division coursework of applicant's Bachelor's degree and a GPA of at least 3.3/4.0 in the applicant's Master's degree are required.
3. A GRE score of at least 1150 points, with the following minimum scores on the individual components: verbal ≥ 450 and quantitative ≥ 700 .
4. Three letters of recommendation.
5. A statement of research interests and goals.
6. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

The Graduate Admission Committee will examine credentials of all applicants. Applicants who have not satisfied the above will be evaluated for probationary or waiver admission.

Degree Requirements

Credit Requirements

The PhD program requires a total of 90 credit hours beyond the BS degree. These credits are comprised of a minimum of 48 hours of coursework and a minimum of 24 hours of dissertation.

Applicants having a Master's Degree in Biomedical Engineering or closely related field from an accredited institution are given a maximum of 30 transferred semester hours. Applicants from science and engineering areas other than biomedical engineering will be expected to complete undergraduate courses selected to prepare them for graduate courses in their area of interest. Full admission into the graduate program requires the completion of these background courses with no grades below "C" and a grade point average of 3.0 or better.

Qualifying Examination, Candidacy Requirements, and Final Defense

Students must demonstrate graduate knowledge acquisition in three incremental stages in order to be awarded a PhD in Biomedical Engineering:

- Qualifying Exam (written)
- Proposal Defense and Candidacy Exam (oral and/or written)
- Final Defense (oral)

The Qualifying Exam will generally take place during the first two semesters of the PhD program (following the Master's). If the student enters the PhD directly from the BS, the exam should take place during the second year of study. In the semester prior to his/her taking the Qualifying Exam, student must declare intention to take the exam and must declare a major area. In the event a student fails the Qualifying Exam, the student can retake it one more time in the subsequent semester.

The formal admission to PhD candidacy occurs when the student successfully passes the Qualifying Exam, prepares a formal dissertation proposal, and successfully defends the content of the proposal before his/her advisory committee and completes all the course work. Immediately following the proposal defense, the student's dissertation committee will vote to admit the student to candidacy, to have the student resubmit the proposal within six months, or to dismiss the student from the PhD program. A student can only resubmit his/her proposal once. The dissertation committee should be comprised of

at least five members, at least three of which should be biomedical engineering graduate faculty and at least one FIU graduate faculty member outside of biomedical engineering.

All students in the PhD program are required to complete a dissertation under the supervision of an advisor and committee. When the dissertation research is completed, the student should schedule a final defense with the examining committee. The dissertation, with an approval cover letter from the advisor, should be given to the examining committee for review not less than four weeks before the scheduled defense. The candidate should prepare to summarize the dissertation in the manner of a technical paper using appropriate visual aids in 40 minutes or less. Following the presentation, the candidate will answer questions related to the work from the audience and/or the committee. At the conclusion of the defense, the committee will agree upon the outcome pass or fail and report the results to the Graduate School. Following the exam the student will implement the committee's suggestions for improving the draft document. Each committee member must sign the approval form in the final document. Copies of the approved dissertation must be provided to the advisor, Department, and the University Graduate School. Students should become familiar with the University Graduate School's regulations and deadlines available on line at <http://gradschool.fiu.edu>.

Program of Study

The program of study will require completion of courses (beyond the BS degree) in the following categories:

Biomedical Engineering – minimum of 24 credit hours

A minimum of four courses (12 credit hours) in one specialty area, a minimum of two courses (6 credit hours) in each of two other specialty areas, and a biomedical engineering seminar course are required. The four current specialty areas within biomedical engineering are:

1. Biomechanics, biomaterials, medical devices, and bionanotechnology
2. Bioinstrumentation and biosignal processing
3. Drug delivery, tissue engineering, systems biology
4. Medical and molecular imaging and biomedical optics

BME 7980	Dissertation	12
BME 7938	Doctoral BME Seminar	0

Engineering Mathematics – minimum of 9 credit hours

Courses in this area must cover the broad areas of statistics, theoretical modeling, and numerical modeling. Example courses in each of these areas are:

Statistics:

STA 5206	Design of Experiments
	or
STA 6176	Biostatistics

Theoretical modeling:

BME 6715	Mathematical Modeling of Physiological Systems
	or
BME 6716	Mathematical Modeling of Cellular Systems

Numerical modeling:

BME 6705	Nonlinear Systems Applications in Life Science
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Life Science – minimum of 9 credit hours

Unless otherwise approved by the student's committee, courses in this category should include the following:

PCB 6027	Molecular and Cellular Biology II
BME 6019	Clinical Research Experience
Life Science Elective	
Two biology techniques workshops, examples include the following:	
BCH 6130C	Workshop in DNA Synthesis and Amplification
BCH 6131C	Workshop in Radioisotope Use and Safety
BCH 6132C	Workshop in Electrophoresis
BCH 6133C	Workshop in DNA Sequencing
BCH 6507C	Workshop in Radiometry and Spectrophotometry
BSC 5416C	Workshop in Cell Culture Methods and Applications
BSC 5928	Workshop: Vertebrate Animal Research
PCB 5025L	Molecular Biology Techniques Laboratory
PCB 5184	Workshop in Microtechniques
ZOO 5732	Advanced Anatomy Demonstration

The remainder of the coursework (minimum of 6 credit hours) is reserved for electives.

Course Descriptions

Definition of Prefixes

BME-Biomedical Engineering; EEL-Electrical Engineering; EGM-Engineering Mechanics

BME 5005 Applied Biomedical Engineering Principles (3). Biomedical engineering applications to instrumentation, transport phenomena, mechanics, materials and imaging. Prerequisite: Permission of the instructor.

BME 5036 Biotransport Processes (3). Transport of fluid, heat, and mass in the human body. Application to dialyzers and heart-lung devices. Prerequisites: BME 3032, BME 4100.

BME 5105 Intermediate Biomaterials Science (3). Materials used in prosthesis for skin and soft tissue, vascular implant devices, bone repair, and artificial joints. Structure-property relationships for biological tissue. Prerequisite: Permission of the instructor.

BME 5316 Molecular Bioprocess Engineering (3). Use of enzyme kinetics, bioreactor design, bioprocesses and bioprocessing in the biomedical, biopharmaceutical, and biotechnology industries. Prerequisites: BCH 3033, BME 3032.

BME 5340 Introduction to Cardiovascular Engineering (3). Quantitative cardiovascular physiology, engineering applied to cardiovascular system: mechanics, materials, transport, and design.

BME 5350 Radiological Engineering and Clinical Dosimetry (3). Quantities for describing the interaction of radiation fields with biological systems. Absorption of radiant energy by biological systems. Applications to clinical dosimetry and radiation safety procedures. Prerequisite: Permission of the instructor.

BME 5358L Clinical Rotation in Radiation Oncology (3). Practical calibration of radiation therapy instruments,

dose calculation and planning of radiation treatment under supervision of certified medical physicist. Prerequisites: BME 5XXX Engineering Foundation of Radiation Therapy and BME 6405C.

BME 5560 Biomedical Engineering Optics (3). Introduction to physical and geometrical optics of biomedical optical devices. Design of optical microscopes, endoscopes, fiber optic delivery systems, spectrometers, fluorimeters, and cytometers. Prerequisites: Calculus, Differential Equations, Chemistry, and Physics.

BME 5726 Protein Engineering (3). Cloning, expressing and purifying proteins, and E. coli and Yeast expression systems. Design of proteins for specific end uses. Prerequisite: Permission of the instructor.

BME 5731 Analysis of Physiological Control Systems (3). Quantitative analysis methods and modeling of the self-regulation processes that result in homeostatic conditions in physiological systems with special emphasis on processes found in the human body. Prerequisites: Permission of the instructor, EEL 3003, BME 3701.

BME 5941 Biomedical Engineering Internship (1-3). Engineering practice in biomedical applications at an industrial partner's site. Intern will be hired through cooperative agreement to conduct collaborative research with supervision of advisor.

BME 6019 Clinical Research Experience (1). Students are matched with and then "shadow" a clinician during procedures (diagnostic and interventional), and research and development activities. Prerequisite: Permission of the instructor.

BME 6035 Drug Transport Modeling (3). Theoretical and experimental models of drug transport systems, computer simulations of fluid and mass transport in biomedical systems, pharmacokinetics modeling and molecular imaging. Prerequisite: BME 5036.

BME 6037 Controlled Delivery in Biomedicine (3). Overview of methods of controlled drug delivery and their applications in biomedical engineering. Oral, pulmonary, transdermal, and polymeric delivery/devices. Prerequisites: BME 5105, BME 5036.

BME 6212 Solid Mechanics Applications in Physiological Systems (3). Solid mechanics and numerical methods as applied to analysis of the musculoskeletal system and trauma. Design application in orthotics and prosthesis and heart valves. Prerequisites: BME 4007 or permission of the instructor.

BME 6235 Advanced Cardiac Mechanics (3). Applications of principles of solid mechanics to the human cardiovascular system. 3-D reconstruction of the left ventricle, contractile properties and stress distribution in the myocardium. Prerequisite: BME 6212.

BME 6265 Fluid Mechanics Applications in Physiological Systems (3). Fluid mechanics principles including finite element and finite difference methods as it is applied to the analysis of various physiological systems will be covered. Process flow, diffusion and transport will be discussed in cardiovascular and pulmonary systems. Application of these primarily in the design of heart-lung machines, dialysis units, and heart valves will be

discussed. Prerequisites: BME 4007 or permission of the instructor.

BME 6266 Advanced Biofluid Mechanics (3). Applications of fluid mechanics principles to human circulatory systems. Unsteady blood flow and wave propagation in elastic tubes. Influence of fluid dynamics on thrombosis and atherosclerosis. Prerequisite: BME 6265.

BME 6330 Cell/Tissue Engineering: Theory and Methodology (3). Overview of tissue engineering theory and practice with emphasis on cell behavior and morphology. Prerequisites: BME 5105, BME 3700/5702.

BME 6345 Advanced Cardiovascular Engineering (3). Engineering modeling, design, and measurements related to cardiovascular system, disease and diagnosis. Prerequisite: BME 5340.

BME 6351C Radiation Safety in Biomedicine (3). Theory and engineering basis of radiation safety in diagnostic and therapeutic radiology. Regulatory issues for the safe use of radiation in medicine. Prerequisite: BME 5350.

BME 6353C Advanced Radiation Dosimetry (3). State of the art of radiation treatment planning in radiation oncology. Intensity modulated radiation treatment methods and instruments. Prerequisite: BME 5XXX Engineering Foundation of Radiation Therapy.

BME 6359L Clinical Rotation in Diagnostic Radiology (3). Measuring of radiation fields for quality assurance of diagnostic radiology and nuclear medicine instruments under supervision of a certified medical physicist. Prerequisite: BME 6405C.

BME 6405C Engineering Foundation of Medical Imaging Instrument (3). Engineering basis of medical imaging systems, including radiology, X-Ray CT, SPECT, PET, MRI, and laser and ultrasound based imaging, as well as instrument quality assurance procedures. Prerequisite: Permission of the instructor.

BME 6408 Molecular Imaging (3). Production of PET and SPECT isotopes and radiopharmaceuticals, pharmacokinetics and experimental models of nuclear medicine tracer kinetics, imaging of molecular processes and function. Prerequisites: BME 6035, BME 5XXX Medical Imaging Instruments.

BME 6501 Applied Biomedical and Diagnostic Measurements (3). Fundamentals of biomeasurement systems and devices. This includes transducers and electrodes, EMG, EEG, ECG and medical imaging techniques, and electrical safety. Prerequisites: BME 4007 or permission of the instructor.

BME 6545 Biosensors and Nanobioelectronics (3). Advanced topics in the design and practical application of bioelectronic devices such as biosensors, DNA nanowires, analytical electrochemistry and biomolecular electronics. Prerequisites: Permission of the instructor, CHM 1046, BCH 3033.

BME 6563 Optical Spectroscopy (3). Introduction to the scientific principles of optical spectroscopic technologies and their usage in the field of medicine. Prerequisite: Permission of the instructor.

BME 6564 Optical Imaging Biomedicine (3). Optical techniques for imaging the structure and function of biological tissues. Modeling of light transport in tissue (forward problem) and image reconstruction (inverse problem). The basic physics and engineering of each optical based imaging technique will be covered. Prerequisites: BME 4562 or BME 5560, MAP 2302.

BME 6565 Quantitative Microscopy and Visualization (3). Practical and useful projects in optical, confocal, near field, scanning probe and other advanced microscopy and cytometry. Spatial and spectral quantitation of physiologic measures in living tissue. Prerequisite: Permission of the instructor. Corequisite: BME 5560.

BME 6705 Nonlinear Systems with Applications to Life Sciences (3). Concepts and applications of nonlinear dynamics to life sciences. Specific nonlinear models arising from biology and medicine will be investigated using computer simulations. Prerequisite: Permission of the instructor.

BME 6715 Mathematical Modeling of Physiological Systems (3). Engineering modeling, design, and measurements related to cardiovascular system, disease and diagnosis. Prerequisite: Permission of the instructor.

BME 6716 Mathematical Modeling of Cellular Systems (3). Development of mathematical modeling techniques for engineers using cellular systems as an application. Biochemical reactions, membrane potentials, excitable cells, wave propagation, cellular regulation. Prerequisite: Permission of the instructor.

BME 6723 Bioinformatics in Cytomics (3). Biomedical data archiving, analysis and visualization. Medical imaging, microscopy imaging, multiparameter cytometry sensors, protein and gene sequencing data processing are emphasized. Prerequisite: BME 5XXX.

BME 6725 Cytomic and Proteomic Measurement Techniques (3). Principles and methods of cytoxic, proteomic and genomic technology. Cellular probes, variance of protein expression. Description of the genome. Cytometry assays, protein structure, microarrays. Prerequisite: BME 5XXX.

BME 6750 Artificial Organs (3). Theoretical and experimental models of artificial organs for drug delivery, extracorporeal devices, oxygenators, models of tissue engineered organs, computer simulations of fluid and mass transport. Prerequisites: BME 5036, BME 5105, BME 6035.

BME 6905 Independent Studies (1-3). Individual research studies for qualified biomedical engineering graduate students. Work is to be performed under the supervision of an advisor.

BME 6907 BME Master's Project (3). Individual work culminating in a professional practice-oriented report suitable for the requirements of the Professional Track of the MS program in biomedical engineering. Prerequisite: Permission of the instructor.

BME 6910 Supervised Research (1-6). Graduate level biomedical engineering research carried out under the supervision of a faculty member.

BME 6936 Biomedical Engineering Seminar (0). Problems in Biomedical Engineering and results of ongoing research will be presented and discussed by invited experts. Prerequisite: Permission of the instructor.

BME 6970 Master's Thesis (1-6). Master's thesis on Biomedical Engineering is to be submitted and an oral presentation is to be made. Thesis should contain aspects of design to fulfill requirements for combined BS/MS program. Prerequisite: Advisor's permission.

BME 7334C Cell/Tissue Engineering: Methods and Applications (4). Overview of tissue engineering theory and practice with emphasis on cell behavior and morphology. Prerequisite: BME 6330.

BME 7938 Doctoral Biomedical Engineering Seminar (0). The course consists of oral presentations made by guests, faculty and graduate students on advanced topics and current research activities in Biomedical Engineering. Prerequisites: Permission of the major professor and Doctoral Candidacy.

BME 7980 Ph.D. Dissertation (1-12). Doctoral Research leading to the Ph.D. Biomedical engineering dissertation. Prerequisites: Permission of the major professor and Doctoral Candidacy.

EEL 5261 Bioelectrical Models (3). Engineering models for electrical behavior of nerve and muscle cells, electrode-tissue junctions, volume conduction in tissue and the nervous system as an electrical network. Prerequisites: ELR 4202 or permission of the instructor.

EEL 5275 Bioradiation Engineering (3). Spectrum of radiation sources, types of fields, properties of living tissue, mechanisms of field propagation in tissue. Applications in imaging and therapy, hazards and safety. Prerequisites: EEL 4410 or permission of the instructor.

EEL 6285 Bioradiation Biosignal Processing I (3). Characterizing biosignals by application of time and frequency domain analytic methods. Comparison of analog and digital processing. Engineering design for VLSI implementations in implantable devices. Prerequisites: EEE 4202C and EEL 6505 or permission of the instructor.

EEL 6286 Bioradiation Biosignal Processing II (3). Engineering design of advanced systems for processing biosignals. Methods for signal compression. Adaptive systems for automatic recognition. Application of artificial intelligence for signal classification. Prerequisites: EEE 6285 or permission of the instructor.

EEL 5820 Digital Image Processing (3). Image Fundamentals, Image Transforms, Image Enhancement, Edge Detection, Image Segmentation, Texture Analysis, Image Restoration, and Image Compression. Prerequisites: EEL 3135 and knowledge of any programming language (FORTRAN, Pascal, C).

EEL 6816 Electronic Neural Systems (3). This course bridges electronics to the understanding of neurobiologically inspired models. Biological tasks and neural computations are studied in the context of networks and processing elements. Prerequisite: Permission of the instructor.

EEL 6821 Computer Vision (3). Image formation and image properties, radiance and irradiance, introduction to

brain topography, color vision, visual machinery of the brain, statistical pattern classification and decision functions, the eigensystem and its computational aspects, stereo vision, motion vision, size and orientation independence. Prerequisite: EEL 5820.

EEL 6836 Computer Visualization of Brain Electrical Activity (3). Computer techniques for the visualization of brain electrical activity. Analysis of the origin of this activity as it relates to its measurement and visualization through computerized systems. Prerequisites: EEL 4510 or permission of the instructor.

Civil and Environmental Engineering

Fang Zhao, Ph.D., P.E., *Professor, Acting Chair and Graduate Program Director*

Caesar Abi Shdid, Ph.D., *Instructor, Undergraduate Advisor, Director of CT3*

Girma Bitsuamlak, Ph.D., P. Eng., *Assistant Professor*

Arindam G. Chowdhury, Ph.D., *Assistant Professor and Director, Laboratory for Wind Engineering Research*

Hector R. Fuentes, Ph.D., P.E., D.E.E., *Professor*

Albert Gan, Ph.D., *Associate Professor*

Mohammed Hadi, Ph.D., P.E., *Assistant Professor*

Sylvan C. Jolibois, Jr., Ph.D., *Associate Professor*

Shonali Laha, Ph.D., P.E., *Associate Professor*

Fernando Miralles-Wilhelm, Ph.D., P.E., *Associate Professor, Director, ARC*

Amir Mirmiran, Ph.D., P.E., *Interim Dean and Professor*

Luis A. Prieto-Portar, Ph.D., P.E., *Professor*

L. David Shen, Ph.D., P.E., T.E., *Professor and Director, LCTR*

Nakin Suksawang, Ph.D., *Assistant Professor*

Walter Z. Tang, Ph.D., P.E., *Associate Professor*

Berrin Tansel, Ph.D., P.E., *Associate Professor*

LeRoy E. Thompson, Ph.D., P.E., *Professor Emeritus*

Ton-Lo Wang, Ph.D., P.E., *Professor and Undergraduate Program Director*

Affiliated Faculty

Irishad Ahmad, Ph.D., P.E., *Construction Management*

Syed M. Ahmed, Ph.D., *Construction Management*

Yelena Katsenovich, Ph.D., *ARC*

Stephen P. Leatherman, Ph.D., *IHRC*

Assefa M. Melesse, Ph.D., P.E., *Environmental Studies*

George P. Philippidis, Ph.D., *ARC*

Lehman Center for Transportation Research

L. David Shen, Ph.D., P.E., T.E., *Director*

The Department of Civil and Environmental Engineering offers advanced study for the degree of Master of Science and Doctor of Philosophy. Degrees offered include: Master of Science in Civil Engineering, Master of Science in Environmental Engineering, Master of Science in Environmental and Urban Systems, and Doctor of Philosophy in Civil Engineering. The areas of specialty are Structures, Mechanics, Geotechnical, Construction, Transportation, Water Resources, and Environmental Engineering.

Master of Science in Civil Engineering

The Master of Science program in Civil Engineering emphasizes course work as well as research. The student is required to specialize in a defined area of civil engineering, but may broaden knowledge through studies combining subject material from different areas of specialization and interdisciplinary related courses.

The graduate degree is offered to prepare qualified students for the professional practice of or advanced academic research in civil engineering. The degree is available in a thesis or non-thesis program. The thesis program entails a minimum of six credits for the successful completion of research and a thesis. The non-thesis program must be supported by the successful completion of a project and a report of substantial engineering content

for a minimum of three credits. A student must satisfactorily complete a minimum of 30 semester credits of acceptable graduate course work.

Master of Science in Environmental Engineering

A Master of Science in Environmental Engineering is available to students interested in graduate work in Environmental Engineering. The program is designed to expose graduate students to a wide range of knowledge on environmental engineering and on problem solving while encouraging them to pursue individual research interests. Thus, the curriculum has a common core of courses but is flexible enough to permit an interdisciplinary approach, if so desired, and allows the student to pursue his or her career goals.

The applicant should hold a Bachelor's degree in engineering, the natural sciences, or a closely related field. Students who do not meet the stated criteria may be considered for admission if they satisfy any deficiencies and complete the required prerequisites. A student must satisfactorily complete a minimum of 30 semester credits of acceptable graduate courses, including either a master thesis or an engineering project.

Master of Science in Environmental and Urban Systems

The Master of Environmental and Urban Systems (MEUS) is an interdisciplinary program designed for planning professionals and graduate students in urban issues. The purpose of the MEUS degree is to provide a multidisciplinary education to students interested in the practice of urban and environmental planning. Graduates of the program may eventually apply their skills in various government agencies or private enterprises within a variety of subject areas. Particular emphasis may be placed on issues related to tropical and subtropical areas. A student must satisfactorily complete a minimum of 30 semester credits of acceptable graduate courses, including either a master thesis or a project.

Combined BS/MS Program

Students who pursue a BS degree and are in their senior year and have at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program upon recommendation from three CEE faculty members. Students must also submit an on-line application to the University Graduate School for admission to the MS program. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of both the department and the University Graduate School.

Students enrolled in the program may count up to nine credit hours of CEE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. However, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the nine credits in

both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of B is required. All double counted courses must be at 5000 level or higher. Students enrolled in the program may count up to nine credit hours of CEE graduate courses toward the elective engineering BS requirements as well as toward the MS degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the Undergraduate Advisor.

Students interested in the program should consult with the Undergraduate Advisor on their eligibility for the program. The students should also meet the Graduate Program Director to learn about the graduate program and available courses before completing the application form and submitting it to the Undergraduate Advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Undergraduate students enrolled in the program are encouraged to seek employment with a department faculty to work as student assistants on sponsored research projects. The students will be eligible for graduate assistantships upon admission into the graduate school.

Admission Policies for Master of Science Programs

A student seeking admission into Civil Engineering or Environmental Engineering graduate program must have a bachelor's degree in Civil Engineering, Environmental Engineering, or related engineering or equivalent from an accredited institution or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level. In the case of a student seeking admission into Environmental and Urban Systems graduate program, the bachelor's degree must be in environmental or urban systems, environmental studies, engineering, architecture, social sciences, natural sciences, or a closely related field. The minimum requirements for admission to the Master programs are:

1. At least a "B" average in upper level undergraduate work, and
2. A bachelor's degree in engineering, science, or a closely related field from an accredited institution, and
3. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required, and
4. Three letters of recommendation or the forms provided by the department, and
5. A statement of objectives in which, in addition to other information, the intended concentration must be clearly stated, and
6. A resume including contact information, education and employment history, practical and research experiences (such as projects and publications), skills and other pertinent information.

Students who meet all criteria, except for requirements 1 and 2 above, may be evaluated for conditional admission. Meeting the minimum requirements does not guarantee admission to the programs.

Grades earned at an institution with non-traditional grading systems will be given every consideration and

applicants will be treated equally as are students from institutions with traditional grading systems.

Application Procedures for Master of Science Programs

A student planning to enroll in the graduate program must complete the following:

1. Submit an online Graduate Application for Admission to the Graduate Admissions Office.
2. Have a copy of the official transcripts of all previously earned college or university credits sent from the applicant's former institution(s) to the Graduate Admissions Office.
3. Send three letters of recommendation, statement of objectives, and resume directly to the Graduate Program Director of the appropriate program.
4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

It should be emphasized that the admission cannot be acted upon until all of the documents and credentials have been received.

Students seeking a waiver to normal admissions standards must contact the departmental main office for filing instructions and deadlines.

Degree Requirements for Master of Science Programs

To be eligible for a Master's degree a student must:

1. Satisfy all University requirements for a Master's degree.
2. Meet all undergraduate deficiencies, and requirements as specified by the students' advisory committee.
3. Complete 30 semester hours of acceptable graduate level courses.
4. Successfully complete the core courses defined for the student's chosen specialty area.
5. Earn a minimum grade point average of 3.0 in all approved courses in the student's program of study.
6. Complete an acceptable thesis (minimum six credits) or engineering or graduate project (minimum three credits).
7. Pass an oral examination that includes an oral defense of the thesis or engineering project for students pursuing a MS degree in Civil Engineering or Environmental Engineering, or graduate project for students pursuing a MS in Environmental and Urban Systems.

Core Courses

In order to master real-life engineering problems, engineers need to have an education with both breadth, as well as depth. Therefore, in addition to the above degree requirements, students must choose an area of technical specialization upon enrollment and satisfy the core course requirements as defined below. A proposed program of study shall be developed by a student's academic advisor together with the student and approved by the Graduate Program Director.

Environmental Engineering

Environmental engineering students are required to take at least one course in each of the following core areas:

- Water supply/wastewater/water quality,
- Air quality,
- Soil/solid/hazardous waste, and
- Water resources (including groundwater).

Furthermore, it is advisable that students gain some expertise in environmental chemistry and in computational techniques including GIS techniques, while seeking knowledge in new areas of research and development.

Students are also required to register for one credit of the Graduate Environmental Seminar (ENV 6935) and are encouraged to participate in it each year.

Water Resources Engineering

This field involves the analysis of qualitative and quantitative water issues and the search for integrated, innovative and sustainable solutions to problems in the surface, groundwater, and atmospheric water environments.

Students pursuing a M.S. in Civil Engineering with concentration in Water Resources Engineering will follow a program of study that includes 15 credit-hours of engineering coursework emphasizing advanced knowledge and applications in either hydrology, hydraulics or hydrosystems or their combination thereof. The students will also complete a three credit-hour independent study to enrich the area of sought expertise.

Students are required to take the Graduate Seminar (CGN 6939 or ENV 6935) once and are strongly encouraged to attend it while registering in the program. Students may also include up to six credit hours from other civil engineering areas or related disciplines, as long as the subjects relevantly add to the student's water resources engineering knowledge.

Structures/Geotechnical/Construction

Students are required to take at least twelve (12) credit hours of core course work as follows:

1. One construction course (3 credits). Choose from:
 - CCE 5035 Construction Engineering Management
 - CCE 5036 Advanced Project Planning for Civil Engineers
2. Two structures courses (6 credits). Choose one from:
 - CES 5106 Advanced Structural Analysis
 - EGM 5421 Structural Dynamics
 and one from:
 - CES 5715 Prestressed Concrete Design
 - CES 6706 Advanced Reinforced Concrete Design
3. One technical course (3 credits). Choose from:
 - CEG 5065 Geotechnical Dynamics
 - CEG 6105 Advanced Foundations Engineering

Furthermore, it is advisable that the students gain some expertise in structural mechanics and numerical methods.

Transportation Engineering

Transportation engineering is concerned with the planning, design, operation, and maintenance of the transportation infrastructure and systems. A student who chooses to specialize in transportation engineering must complete a minimum of five courses from the list below:

- | | |
|----------|-------------------------------------|
| TTE 5205 | Advanced Highway Capacity Analysis |
| TTE 5215 | Fundamentals of Traffic Engineering |
| TTE 5607 | Transportation Demand Analysis |

- | | |
|----------|---|
| TTE 5805 | Advanced Geometric Design of Highways |
| TTE 6257 | Traffic Control Systems Design |
| TTE 6506 | Mass Transit Planning |
| CGN 5320 | GIS Applications in Civil and Environmental Engineering |

Grades and Credits

No course in which a grade below a 'C' is earned may be counted toward a Master of Science degree.

Transfer Credit

The student may receive permission to transfer up to a maximum of six semester hours of graduate credit earned from another institution or up to 12 semester hours of graduate credit earned as a non-degree seeking students at FIU after admitted into one of the graduate programs in the Civil and Environmental Engineering Department. Such credits are transferable provided that: (1) the course(s) were taken at the graduate level at an accredited college or university; (2) grade(s) of 'B' or higher were earned for the courses; (3) the course(s) are judged relevant by the student's advisory committee; (4) the credits were not used toward another degree; and (5) the credit(s) were completed within six years immediately preceding the awarding of the degree.

Credits are not transferable until the student has earned 12 semester hours in the graduate programs in the Department of Civil Engineering and Environmental Engineering.

Time Limit

All work applicable to the Master's degree, including transfer credits, must be completed within six years of first enrollment in the master's program.

Doctor of Philosophy in Civil Engineering**Minimum Admission Requirements**

The minimum requirements for admission to the doctoral program in civil engineering are:

1. Applicants having a Master's degree in Civil Engineering or Environmental Engineering from a U.S. institution must satisfy the following requirements for admission to the doctoral program:

- a. GPA of at least 3.3/4.0 in the master's program
- b. GRE verbal plus quantitative of at least 1120 points
- c. Three letters of recommendation or the forms provided by the department

d. A statement of objectives in which, in addition to other information, the intended research area must be clearly stated. (see identification of Research Area)

e. A resume containing contact information, education and employment history, practical and research experiences (including publications), skills and other pertinent information.

2. Credentials of all other applicants including those with foreign degrees and those with B.S. degrees in other disciplines will be examined by the Graduate Program Advisory Committee on a case by case basis. Additional credentials that will be considered include, but are not limited to, work experience, awards and recognitions, publications and presentations, and other professional experience.

3. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

4. In addition to the departmental requirements, all students must satisfy the University's Admission and Graduate Policies and Procedures.

Degree Requirements

Maximum Length of Study

The maximum length of study is seven years for students admitted with a B.S. degree and six years for students with an M.S. degree. For those students who have not completed their studies within these limits, the length of study may be extended on a yearly basis after petition by the student and approval by the student's supervisory committee. Any extension beyond nine years must be approved by the University Graduate School.

Identification of Research Area

There are currently three main areas of research or specialization: (1) Structural, Geotechnical, and Construction Engineering; (2) Environmental and Water Resources Engineering; and (3) Transportation Engineering. The student must contact the Department for a list of all faculty members, visit them, and be accepted by one professor to guide the dissertation research. If no such professor can be found, within 15 months of admission, the student will be dismissed from the Ph.D. program.

Course Requirement

The program will consist of at least 90 semester credit hours beyond the baccalaureate degree, 54 hours of which are course work and 24 hours dissertation, or at least 60 semester credit hours beyond the M.S. degree, 24 hours of which are course work and 24 hours dissertation. The remainder of the required minimum credit hours may be taken as either course work or dissertation or a combination thereof as approved by the student's advisor. Applicants who have a Master's degree in Civil and Environmental Engineering or a closely related field from an accredited institution are given a maximum of 30 transferred semester credit hours. In addition to the above requirements, the selection of courses must meet the following requirements for credits beyond the Master's degree:

1. Minimum three credits in Mathematics or Statistics
2. Minimum 18 core credits in the selected major area in Civil and Environmental Engineering
3. Any deviation from requirements 1 and 2 above must be justified in writing and approved by the CCE Graduate Program Director.

Additional engineering courses (3000 and 4000 level) may be required as deficiencies for students coming from non-engineering majors.

All courses and dissertation topics must be approved by the student's supervisory committee. A proposed program of study shall be developed by a student's academic advisor together with the student and approved by the Graduate Program Director.

Core Courses

All Ph.D. students must satisfy the core course requirements defined for the MS degree programs. A student may take additional courses in the specialty as well as other areas as approved by the major advisor and the dissertation committee, provided all the core courses have been completed previously during the MS program or will be completed in the Ph.D. program.

Supervisory Committee

The student's supervisory committee should be appointed as soon as possible and within the 15-month period after the student has been admitted to the Ph.D. program. The committee must have a minimum of four members, at least three from the Department of Civil & Environmental Engineering, and at least one from outside the department, but within FIU. All committee members should have a Ph.D. degree and must be members of the graduate faculty. The major professor must hold dissertation advisor status. The supervisory committee should meet as early as possible to review student's background, discuss student's expected research areas, provide guidance on course selection, etc.

Residency Requirements

The Ph.D. student should spend at least one academic year in full residency, after successfully passing his/her Comprehensive Examination (see the following description).

Examinations

A student must successfully complete the following written exam and oral defenses in partial fulfillment of requirements for the Ph.D. degree in Civil Engineering:

1. Qualifying Exam: The Qualifying Exam must be taken as soon as possible and no later than the semester the student completes the minimum course requirements. The exam consists of eight problems covering materials from core courses as determined by the student's supervisory committee. The exam will be open-book and the student will be given eight hours to solve all eight problems. In the event that a student fails the exam, he or she can retake it only once in the subsequent semester.
2. Proposal Defense: The proposal defense must be completed at least one year prior to the expected graduation date. In addition to the five-page proposal (brief version) required by the University Graduate School, the student must prepare a detailed proposal that contains, at a minimum, background information, problem statement, objectives, literature review, methodology, work plan, and schedule. The proposal must be submitted to each committee member at least two weeks prior to the defense date. The defense will be given in the form of a graduate seminar that is open to all faculty, students, and visitors. A student can take the proposal defense twice.
3. Dissertation Defense: A draft dissertation must be submitted to each committee member at least six weeks prior to the date of the defense. The defense will be given in the form of a graduate seminar that is open to all faculty, students, and visitors. A student can fail this defense only once. In addition to dissertation copies to the University Graduate School, the student must deliver one final approved bound copy to the Department Chairperson, one to the major advisor, and one to each member of the supervisory committee. Students should become familiar

with the University Graduate School's regulations and deadlines available on line at <http://gradschool.fiu.edu>.

Graduate Certificate in Information Technology in Civil Engineering (ITCE)

The **ITCE** program brings information, communication and computing technology to the civil and environmental engineering professionals, who otherwise have little opportunity to be exposed to the rapidly changing technologies and techniques in these areas. The program will provide the opportunity to learn the basics and application techniques of these technologies in an organized, systematic, and formal setting. The program offers a set of carefully selected courses on computing and information technologies tailored to the needs of engineers in the fields of civil and environmental engineering, including structural, transportation, geotechnical, construction, and water resources engineering. The **ITCE** program also provides specialization opportunities for professionals interested in developing computer and information technology applications in the civil and environmental engineering fields. This program will help professional engineers (PE's) earn continuing education credits required to retain their registration. Interested students will be able to continue to earn a Master of Science in Civil Engineering degree if the admission requirements for the Masters program are met.

A minimum undergraduate GPA of 2.75 is required for admission. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. To earn a graduate certificate in ITCE, the students must successfully complete the program's core and elective courses.

The ITCE curriculum consists of 18 credit hours – six courses (three core + three elective) of three credit hours each as shown.

Core (Required) Courses:

CGN 6424	Advanced Computing in Civil Engineering
CGN 6308	Intelligent Civil Engineering Systems
CCE 5505	Computer Integrated Construction Engineering

Electives:

CGN 5321	GIS Applications for Civil and Environmental Engineering
CES 5565	Computer Applications in Structures
CGN 6325	Advanced GIS for Civil and Environmental Engineering
CGN 5315	Civil Engineering Systems
BCN 5784	Construction Information Systems
EIN 6117	Advanced Industrial Information Systems
ISM 6222	Telecommunications Network
MAN 6830	Organization Information Systems

Additional information about this program can be found at:

URL: www.eng.fiu.edu/cee

Tel: (305) 348-3055

Fax: (305) 348-2802

Academic Standard

The Department of Civil and Environmental Engineering requires that students receive no grade less than a "C" with an overall GPA of 3.0 in order to be awarded the graduate certificate.

Course Descriptions

Definition of Prefixes

CES-Civil Engineering Structures; CEG-Engineering General, Civil; CGN-Civil Engineering; CWR-Civil Water Resources; EES-Environmental Engineering Science; EGM-Engineering, Mechanics; EGN-Engineering, General; ENV-Environmental Engineering; TTE-Transportation and Traffic Engineering

CCE 5035 Construction Engineering Management (3).

Course will cover construction organization, planning and implementation; impact and feasibility studies; contractual subjects; liability and performance; the responsibility of owner, contractor and engineer. Prerequisite: Permission of the instructor.

CCE 5036 Advanced Project Planning for Civil Engineers (3).

Advanced techniques and methods for planning activities, operations, finance, budget, workforce, quality, safety. Utilize case studies as learning tools for students aspiring to management positions. Prerequisites: CCE 4031 or equivalent.

CCE 5405 Advanced Heavy Construction Techniques (3).

Heavy construction methods and procedures involved in large construction projects such as bridges, cofferdams, tunnels, and other structures. Selection of equipment based on productivity and economics. Prerequisite: CCE 4001.

CCE 5505 Computer Integrated Construction Engineering (3).

Course covers the discussion of available software related to Construction Engineering topics; knowledge based expert systems and their relevance to construction engineering planning and management. Prerequisites: CCE 4031 or equivalent.

CEG 5065C Geotechnical Dynamics (4).

Analytical, field, and laboratory techniques related to vibration problems of foundations, wave propagations, behavior of soils and rocks, earth dams, shallow and deep foundations. Earthquake engineering. Prerequisite: CEG 4011.

CEG 6017 Theoretical Geotechnical Mechanics (3).

A continuum mechanics interpretation of geotechnical engineering; soil rheology; theories of yielding; failure and plastic stability. Analytical and numerical modeling of non-linear properties. Prerequisites: CEG 4012C and MAP 2302. Suggested corequisite: MAP 4401.

CEG 6105 Advanced Foundations Engineering (3).

Computer applications involving the numerical analysis and design of complex soil-structure interactions: highway and airfield pavements, deep foundation groups and NATM tunnelling techniques. Prerequisite: CEG 4012.

CES 5106 Advanced Structural Analysis (3).

Extension of the fundamental topics of structural analysis with emphasis on energy methods and methods best suited for nonprismatic members. Prerequisite: CES 3100.

CES 5325 Design of Highway Bridges (3).

Structural analysis and design for highway bridge systems which

includes design criteria, standards of practice and AASHTO specifications for designing super-structures and substructure elements of various types of bridges. Prerequisites: CES 4605, CES 4702, CEG 4011.

CES 5565 Computer Applications in Structures (3). Discussion and application of available computer programs, techniques and equipment for the analysis, design and drafting of structures. Graduate students have to do a project. Prerequisites: CES 4605 and CES 4702.

CES 5587 Topics in Wind Engineering (3). The course will cover the nature of wind related to wind-structure interaction and design loads for extreme winds, tornadoes and hurricanes. Prerequisites: CES 3100 Structural Analysis and CWR 3201.

CES 5606 Advanced Structural Steel Design (3). Extension of the analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Prerequisite: CES 4605.

CES 5715 Prestressed Concrete Design (3). The behavior of steel and concrete under sustained load. Analysis and design of pre-tensioned and post-tensioned reinforced concrete members, and designing these members into the integral structure. Prerequisite: CES 4702.

CES 5800 Timber Design (3). The analysis and design of modern wood structures. Effect of plant origin and physical structure of wood on its mechanical strength; fasteners and their significance in design. Prerequisite: CES 3100.

CES 6209 Advanced Structural Dynamics in Civil Engineering (3). Response of structures subjected to arbitrary forms of deterministic dynamic loading; formulation of methods to evaluate stresses and deflections due to vibrations. Prerequisite: EGM 5421.

CES 6706 Advanced Reinforced Concrete Design (3). The analysis and design of reinforced concrete and masonry structural systems to formalize the student's knowledge of the behavior of structural components into a final integrated structure. Prerequisite: CES 4702.

CGN 5315 Civil Engineering Systems (3). Application of systems analysis techniques to large scale civil engineering problems. Prerequisites: ESI 3314 or equivalent.

CGN 5320 GIS Applications in Civil and Environmental Engineering (3). Introduction to the basics of geographic information systems, their software and hardware, and their applications in Civil and Environmental Engineering, landscape architecture, and other related fields. Prerequisites: CGS 3420, SUR 3101C and consent of the instructor.

CGN 5930 Special Topics in Civil Engineering (1-3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. Prerequisite: Permission of the instructor.

CGN 5935 Professional Engineering (Civil) Review (4). Prepares qualified candidates to take the P.E. written examination in the field of Civil Engineering. Reviews hydraulics, hydrology, water supply and wastewater, geotechnics, structures, concrete and steel design, etc.

CGN 6308 Intelligent Civil Engineering System (3). Application of artificial intelligence and other techniques to build intelligent civil and environmental engineering systems. Develop planning, design, analysis, diagnosis, control, monitoring applications through projects. Prerequisite: Permission of the instructor.

CGN 6325 Advanced GIS for Civil and Environmental Engineering (3). Advanced GIS concepts and techniques for civil and environmental engineering applications including LRS, temporal GIS, 3D modeling, GIS data accuracy and standards, spatial statistical analysis, and others. Prerequisites: CGN 5930 or permission of the instructor.

CGN 6426 Advanced Computing in Civil Engineering (3). Advanced computer modeling and programming techniques for civil and environmental engineering applications including data modeling, engineering database design, object-oriented programming, and user interface design. Prerequisite: Permission of the instructor.

CGN 6905 Directed Independent Study (1-3). Individual conferences, assigned readings, and reports independent investigations selected by the student and professor with approval of advisor.

CGN 6910 Supervised Research (1-6). Graduate level research carried out under the supervision of a faculty member.

CGN 6916 Engineering Project (1-3). Independent research work culminating in a professional practice oriented report for the requirements of the non-thesis option of the M.S. degree. Prerequisites: Fifteen graduate credits and approved project plan.

CGN 6930 Advanced Special Topics in Civil Engineering (1-3). A course designed to give groups of students an opportunity to pursue special studies in an advanced topic of Civil Engineering not otherwise offered. Prerequisite: Permission of the instructor.

CGN 6939 Graduate Seminar (1-3). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities, readings, and active discussions among participants. Prerequisite: Permission of the graduate's advisor.

CGN 6971 Thesis (1-6). The student following the thesis option of the Master's degree will pursue research through this course. The research work will culminate with an acceptable thesis. Prerequisite: Permission of the graduate's thesis advisor.

CGN 7980 Ph.D. Dissertation (1-12). Doctoral research leading to Ph.D. civil engineering dissertation. Prerequisites: Permission of the Major Professor and Doctoral Candidacy.

CWR 5140C Ecohydrology (3). Hydrology of ecosystems, interaction between the hydrologic cycle and vegetative processes. Prerequisite: Permission of the instructor.

CWR 5235 Open Channel Hydraulics (3). Theoretical treatment and application of hydraulics. Flow in open channels with special reference to varied flow, critical state hydraulic jump, and wave formation. Prerequisite: CWR 3103.

CWR 5251 Environmental Hydraulics (3). Application of fluid mechanics in the study of physical mixing in surface water bodies, dispersion of materials, and design of hydraulic systems. Prerequisite: Permission of the instructor.

CWR 5535C Advanced Modeling Applications in Water Resources Engineering (3). Complex model applications in hydrology, hydraulics, hydrosystems engineering and environmental interconnections. Prerequisite: Permission of the instructor.

CWR 6117 Statistical Hydrology (3). Quantitative determination of surface water run-off from a statistical approach. Prerequisites: CWR 3201 and CWR 3103.

CWR 6125 Groundwater Hydrology (3). Physical properties, equations of flow/mass transport, saturated/unsaturated zone, wells, pumping tests, quality/contamination control, analytical solutions, introduction to numerical models/computer codes. Prerequisite: Permission of the instructor.

CWR 6126 Advanced Groundwater Hydrology (3). Finite difference/finite element/boundary integral methods, transport and fate of chemically and biologically reacting solutes, tracer tests, hydrological approaches to remedial action and monitoring. Prerequisites: CWR 6125 or permission of the instructor.

CWR 6236 Engineering Sediment Transport (3). Physical processes of sediment transport and deposition, land erosion, river morphology applied to engineering design, design of stable channels, scour, transport of sediment-attached pollutants.

EES 5135 Water Quality Indicators (3). Ecological studies of micro and macro organisms which are indicators of water quality. Emphasis of bioassays and early warning systems. Prerequisite: Permission of the instructor.

EES 5137 Biological Monitoring of Freshwater Ecosystems (3). The use of aquatic insects and other invertebrates to monitor changes in the aquatic environment. The ecological aspects of aquatic insects in relation to pollution stress are assessed. Prerequisites: EES 5135 or permission of the instructor.

EES 5506 Occupational Health (3). Effects, assessments, and control of physical and chemical factors in man's environment, including chemical agents, electromagnetic radiation, temperature, humidity, pressures, illumination, noise, and vibration. Prerequisite: Admission to graduate program.

EES 5605 Noise Control Engineering (3). Fundamentals of sound and noise. Health hazards and other effects. Measurement and noise control in transportation, construction, and other environments. Prerequisite: Admission to graduate program.

EES 6506 Environmental and Human Factors (3). Effects, assessment and control of physical and chemical factors in the natural and man-made environments, including noise, electro-magnetic radiation, air and water pollution, public and occupational health, vector control, communicable diseases. Prerequisite: Admission to graduate program.

EES 6508 Occupational Health and Toxicology (3). A continuation of EES 6506. Investigation of toxic substances in air, water, and food in the industrial environment. Prerequisite: EES 6506.

EGM 5111 Experimental Stress Analysis (3). Course covers the necessary theory and techniques of experimental stress analysis and the primary methods employed: brittle coating, strain gauges, photoelasticity and Moire. Prerequisites: EGM 3520, EGM 5653.

EGM 5351 Finite Element Methods in Mechanics (3). Matrix techniques and variational methods in solid mechanics; single element, assemblage and generalized theory; non-linear analysis; applications in structural and soil mechanics, torsion, heat conduction and hydro-elasticity, etc. Prerequisite: EGM 3520.

EGM 5421 Structural Dynamics (3). Fundamentals of free, forced, and transient vibration of singles and multidegree of freedom structures, including damping of lumped and distributed parameters systems. Graduate students have to do a project. Prerequisite: CES 3100 and MAP 2302.

EGM 6425 Structural Reliability (3). Fundamentals of probability theory and stochastic processes; probabilistic modeling of structural loads and material properties; reliability analysis and design of structures; reliability-based design criteria. Prerequisite: STA 3033.

EGM 6533 Advanced Mechanics of Materials (3). Extension of the fundamental principles of engineering mechanics to include curved beams, warping, stability, etc. Prerequisites: CES 5106 and MAP 2302.

EGM 6653 Theory of Elasticity (3). An advanced course covering the concepts of stress and strain tensors, indicia notation, transformation of stresses, compatibility equations, the stress function and the closed form solution of some important continuum mechanics problems. Prerequisites: EGM 3520, MAP 2302.

EGM 6675 Advanced Plasticity (3). Formulation of the plastic stress-strain relationships; Prandtl-Reuss equations; yield criteria; Plane Plastic Flow and the Plane Slip Line Field Theory; limit analysis and basics of creep. Prerequisite: EGM 3520.

EGM 6736 Theory of Elastic Stability (3). Course will cover the beam-column problem; elastic and inelastic buckling of bars and frames; review of experimental work and design formulas; buckling of rings, curved bars and arches; bending and buckling of thin plates and thin shells. Prerequisite: EGM 3520.

EGM 6796 Theory of Plates and Shells (3). A course covering the concepts of thin plates with small deflections; thin plates with large deflections; thick plates; the Membrane Theory of Shells; and the General Theory of Cylindrical Shells. Prerequisite: EGM 3520.

EGN 5439 Design of Tall Buildings (3). The course analyzes different modern high-rise structural systems, and includes the dynamics of wind and earthquakes to efficiently design very tall buildings and their ancillary structures. Prerequisite: Permission of the instructor.

EGN 5455 Numerical Methods in Engineering (3). Study of procedures that permit rapid approximate solutions, within limits of desired accuracy, to complex structural

analysis. Graduate students have to do a project. Prerequisite: CES 3100.

EGN 5990 Fundamentals of Engineering (FE) Review (4). Prepares upper level engineering students to take the Fundamentals of Engineering (FE) State Board examinations. Reviews chemistry, computers, statics, dynamics, electrical circuits, fluid mechanics, mechanic of materials, material science and thermodynamics.

ENV 5002C Fundamentals for Environmental Engineers (3). Laws and principles of the physical, chemical and biological phenomena that define and control the fate of chemical species in natural and engineered systems. Prerequisite: Permission of the instructor.

ENV 5007 Environmental Planning (3). Environmental laws and regulations, ecological principles, planning policies and processes, risk assessment, environmental impact due to growth, and environmental indicators.

ENV 5008 Appropriate Technology for Developing Countries (3). Appropriate environmental technologies and associated factors. Topics include water, air, soil and waste management. Low cost and energy alternatives are emphasized. Prerequisite: Permission of the instructor.

ENV 5027 Bioremediation Processes (3). Biotransformation of subsurface contaminants is gaining recognition as a viable treatment tool. This course provides students with quantitative methods required to design bioremediation systems. Project required. Prerequisite: Permission of the instructor.

ENV 5062 Environmental Health (3). Study of the control and prevention of environmental-related diseases, both communicable and non-communicable, injuries, and other interactions of humans with the environment. Prerequisite: Permission of the instructor.

ENV 5065 Vector and Pest Control (3). Effects and management of public health vectors and communicable diseases. Prerequisites: ENV 5500 or permission of the instructor.

ENV 5104 Indoor Air Quality (3). Assessment of sources of indoor air pollutants and human exposure. Remediation of unhealthy conditions by source control.

ENV 5105 Air Quality Management (3). The air pollution problem, principal types, sources and dispersion of pollutants. Physical, economic, and legal aspects of control of atmospheric pollutants.

ENV 5116 Air Sampling Analysis (3). Practical laboratory work and theoretical aspects involved in a wide range of air sampling and analysis systems. Critical comparison and examination of methods and instrumentation. Source testing, instrumental sensitivity, applicability and remote sensing systems. Prerequisites: ENV 5105 or ENV 4101.

ENV 5126 Particulate Air Pollution Control (3). Particulate pollution control devices, principles, design, costs. Cyclones, electrostatic precipitators, filters, bag houses, scrubbers, noval control devices.

ENV 5127 Gaseous Air Pollution Control (3). Gaseous pollution control devices, principles, design, costs. Gaseous pollutants control using adsorption, absorption, incineration, and other novel control systems.

ENV 5334 Spill Response and Hazardous Materials Transport (3). Consequence analysis of accident scenarios covering the release and dispersion of toxic substances during transport into air, soil, or aquifer and fast response to spills and toxics recovery. Prerequisite: Permission of the instructor.

ENV 5335 Advanced Hazardous Waste Treatment Processes (3). Theory and principles of technologies for treatment and disposal of hazardous waste. Procedures for remedial investigations and feasibility studies. Prerequisites: Hazardous Waste Assessment and Remediation or permission of the instructor.

ENV 5347 Waste Incineration (3). Domestic and industrial waste incineration and pollutant stream control of aqueous and airborne pollutants. Design of incinerations.

ENV 5356 Solid Wastes (3). In-depth study of the solid waste problem. Topics include municipal, industrial, and agricultural generation of wastes; municipal collection systems; methods of disposal, hazardous wastes, and energetic considerations in the recovery and recycle of wastes.

ENV 5406 Water Treatment Systems and Design (3). Course emphasizes water quality, quantities, treatment and distribution systems particularly as relates to municipal water supply. Requires laboratory project. Prerequisite: Permission of the instructor.

ENV 5512 Water and Wastewater Analysis (3). Relevance of the main quality parameters and their measurements by wet chemistry and analytical equipment. Includes BOD, COD, TOC, CO, TSS, VSS, alkalinity, acidity, pH hardness, ammonia, TKN, NO₂, NO₃, PO₄, etc. Prerequisites: ENV 5666, CHM 1046, and CHM 1046L. Corequisite: ENV 5512L.

ENV 5512L Water and Wastewater Analysis Laboratory (1). Experiments are conducted which measure gross organic pollution indicators, suspended solids, conductivity, alkalinity, acidity, pH, nitrate, nitrite, TKN, ammonia, total phosphates, chlorine residual and chlorine breakpoint. Prerequisites: ENV 5666, CHM 1046, and CHM 1046L. Corequisite: ENV 5512.

ENV 5517 Design of Wastewater Treatment Plants (3). Wastewater collection systems. Integration of unit operations into the planning and design of treatment plants, including sludge handling and disposal. Prerequisite: Permission of the instructor.

ENV 5519 Chemistry for Environmental Engineers (3). Basis for applying microbial and physicochemical principles to understand reactions occurring in natural and engineered systems including water/wastewater treatment processes. Includes laboratory project. Prerequisite: Permission of the instructor.

ENV 5559 Reactor Design (3). A theoretical and practical basis for reaction kinetics to understand multi-phase reactions, analysis and design of batch and continuous flow reactors. Projects on analysis of reactor design and operating data.

ENV 5613 Environmental Entrepreneurship (3). Application of environmental engineering concepts in the development of innovative ideas, products or services;

interactive experiences with environmental businesses. Prerequisites: ENV 3001 or permission of the instructor.

ENV 5659 Regional Planning Engineering (3). Theories of urban and regional growth; collective utility analysis; input-output models in planning; application of linear programming to regional social accounting; economic base analysis. Prerequisites: Computer Programming or permission of the instructor.

ENV 5666 Water Quality Management (3). Predicting and evaluating the effect of human activities on streams, lakes, estuaries, and ground waters; and the relation of human activities to water quality and protection of water resources. Prerequisite: Permission of the instructor.

ENV 5905 Independent Study (1-3). Individual research studies available to academically qualified students on graduate status.

ENV 5930 Special Topics in Environmental Engineering (1-3). Specific aspects of environmental technology and urban systems not available through formal course study. Open to academically qualified students only.

ENV 6045 Environmental Modeling (3). Evaluation of regional resources, environmental stresses, and considerations in regional systems; systems analysis in environmental management and its relation to decision making; modeling of air and water systems. Prerequisites: Computer programming or permission of the instructor.

ENV 6056 Engineering Assessment of Metal Contaminants & Colloidal Transport (3). Kinetics of metal sorption reactions, colloidal transport, assessment of metal contaminants in soil. Prerequisite: Permission of the instructor.

ENV 6070 Green Engineering (3). Study of green engineering principles and methodologies to enhance environmental performance of societal sectors, including regulatory framework, sustainability, P2, LCA and industrial ecology. Prerequisite: Permission of the instructor.

ENV 6337 Hazardous Waste Site Assessment (3). Phase I and Phase II Investigations, Environmental Testing, Assessment, Monitoring Design. Prerequisites: ENV 5335 or permission of the instructor.

ENV 6435 Design of Drinking Water Treatment Plants (3). Drinking water treatment plant design, including unit operations from coagulation, sedimentation, filtration to disinfection, together with advanced treatment technologies.

ENV 6510C Advanced Unit Operations I (3). Theory and design of physical and chemical processes for treatment of contaminated media. Application of fluid mechanics, heat and mass transfer to design and operation of physical/chemical systems. Prerequisite: Permission of the instructor.

ENV 6511C Advanced Unit Operations II (3). Theory and design of biological processes for treatment of contaminated media. Application of biochemical reaction kinetics theory to design and operation of biological treatment systems. Prerequisite: Permission of the instructor.

ENV 6511L Advanced Unit Operations II Lab (1). Bench scale experiments for scaling-up and designing the following water and wastewater processes: sedimentation, coagulation, filtration, adsorption, oxidation and gas transfer. Prerequisite: ENV 6510. Corequisite: ENV 6511.

ENV 6516 Advanced Treatment Systems (3). Integration of unit operations into advanced treatment systems for contaminated media. Applications may include either conventional or innovative/emerging technologies. Prerequisite: Permission of the instructor.

ENV 6558 Industrial Wastewater Treatment (3). Characteristics and composition of industrial wastewaters. Sampling techniques and analyses. Water conservation and reuse. Joint industrial-commercial collection and treatment of wastewaters. Prerequisite: ENV 6516.

ENV 6614 Environmental Risk Assessment (3). Characteristics of risk analysis, hazard identification, exposure assessment, consequence analysis, dose-response analysis. Prerequisite: Permission of the instructor.

ENV 6615 Environmental Impact Assessment (3). An examination of alternative techniques useful for analysis and environmental impacts of man's activities. Environmental impact assessment methodologies are emphasized.

ENV 6916 Engineering Project (1-3). Individual work culminating in a professional practice-oriented report suitable for the requirements of the M.S. degree-project option. Only three credits are applicable towards degree. Prerequisites: Completion of 20 graduate credits and approved proposal.

ENV 6934 Advanced Special Topics in Environmental Engineering (1-3). Specific aspects of Environmental Engineering requiring advanced engineering and research skills. A maximum of three credits are applicable towards degree. Prerequisite: Permission of the instructor.

ENV 6935 Graduate Environmental Seminar (1-3). The course consists of oral presentations made by students, guests, and faculty members on current topics and research activities in environmental systems.

ENV 6971 Thesis (1-6). Research for Master's thesis.

TTE 5007 Transportation Systems in Developing Nations (3). Transportation systems in the Developing Nations. Role of international organizations, technology transfer/choices, orientation of transport networks, socio-economic and environmental impacts. Prerequisites: Graduate standing or permission of the instructor.

TTE 5015 Applied Statistics in Traffic and Transportation (3). Civil and Environmental Engineering statistics methods as applied to traffic and transportation are covered. Topics include: significance tests, standard distributions, analysis of variance, and regression analysis. Prerequisite: Graduate standing.

TTE 5100 Transportation and Growth Management (3). Theory and principles of transportation and growth management, including the growth phenomena and regional impact planning. Design projects required. Prerequisite: TTE 4201.

TTE 5107 Highway Safety Analysis (3). Accident reconstruction, intersection analysis, highway safety standards, speed estimations from skidding, momentum/energy relationships, human factors. Prerequisites: STA 3033, TTE 4201.

TTE 5205 Advanced Highway Capacity Analysis (3). Parameters involved in calculating highway capacity and level of service on different highway and transportation facilities. Computer application will be also discussed. Prerequisite: TTE 4201.

TTE 5215 Fundamentals of Traffic Engineering (3). Speed and volume studies, stream characteristics, traffic flow theory, accident characteristics. Prerequisite: TTE 4201.

TTE 5273 Intelligent Transportation Systems (3). ITS functional areas, planning architecture, standards, and evaluation. Implementation of selected ITS technologies and strategies. Prerequisites: TTE 4201 or equivalent.

TTE 5606 Transportation Systems Modeling and Analysis (3). Modeling and analysis techniques in transportation. Linear Programming, queueing theory, decision making techniques. Prerequisite: TTE 4201.

TTE 5607 Transportation Demand Analysis (3). Travel demand analysis and forecasting. Modeling techniques including trip generation and distribution, mode split, and trip assignment. Practical applications. Prerequisite: TTE 4201.

TTE 5805 Advanced Geometric Design of Highways (3). Parameters governing the geometric design of highways; curve super-elevation; widening on highway curves; elements of intersection design; design of interchanges; use of AASHTO design guidelines. Design project required. Prerequisites: SUR 3101C and TTE 4201.

TTE 5835 Pavement Design (3). Analysis and design of sub-base, base, and pavement of a roadway. Discussions of flexible pavement and rigid pavement as structural units. Boussinesq's approach. Westergaard's theory. Beams on Elastic Foundations. Prerequisites: CEG 4011 and CES 4702.

TTE 5925 Urban Traffic Workshop (3). Selected laboratory problems related to urban traffic. Prerequisite: TTE 4201.

TTE 5930 Transportation Seminar (1-3). Oral presentations made by students, guests, and faculty members on current topics and research activities in traffic and transportation engineering. Prerequisite: TTE 4201.

TTE 6257 Traffic Control Systems Design (3). Theory and principles of traffic control systems design, including both freeway and urban streets. Design projects required. Prerequisite: TTE 4201.

TTE 6267 Traffic Simulation Models (3). Traffic simulation modeling and analysis. Application of microscopic and macroscopic traffic simulation models to evaluate and optimize traffic control systems. Prerequisites: TTE 6257 or equivalent.

TTE 6506 Mass Transit Planning (3). Theories and principles of mass transit planning, include highway transit,

rail transit and new transit modes. Design projects required. Prerequisite: TTE 5930.

TTE 6525 Bearing Capacity of Roads and Airfields (3). Advanced study of bearing capacity principles and theory; stress-strain behavior of pavements; constitutive modeling; and failure histories of pavement. Prerequisite: Permission of the instructor.

TTE 6526 Airport Planning and Design (3). Theory and principles of airport planning and design, include both general aviation and major commercial airports. Design projects required. Prerequisite: Permission of the instructor.

TTE 6528 Airport Terminal Design and Operations (3). Theory and practice of airport terminal design and operations, including passenger terminal complex, cargo terminal complex, and ground transportation. Design projects required. Prerequisite: Permission of the instructor.

TTE 6605 Planning and Design of Intermodal Facilities (3). Theory and practice of intermodal facility planning and design, including facility location, site design and access, and intermodal considerations. Design projects required. Prerequisites: TTE 5930 or permission of the instructor.

TTE 6650 Transportation and Land Development (3). Theory and principles of transportation and land development, including site planning, traffic analysis, and access and site circulation. Design projects required. Prerequisite: TTE 4201.

TTE 6701 Light Rail Planning and Design (3). Theory and practices of light rail transit planning and design, including demand analysis, capacity evaluation, geometric design, and track design. Design projects required. Prerequisite: TTE 4201.

TTE 6755 Port Planning and Development (3). Theory and practice of port planning and development, including demand analysis, capacity evaluation, ground access, and port development strategy. Design projects required. Prerequisites: TTE 5930 or permission of the instructor.

TTE 6833 Superpave Asphalt Mixture Design and Analysis (3). Materials characterization and testing; elastic, visco-elastic and plastic behavior; fracture and fatigue, rutting and design of bituminous mixtures. Prerequisite: Permission of the instructor.

TTE 6834 Pavement Maintenance and Rehabilitation (3). Pavement performance assessment; criteria for pavement evaluation, measurement of pavement distress. Analysis and interpretation of pavement condition data. Formulation and evaluation of maintenance and rehabilitation alternative. Prerequisite: Permission of the instructor.

TTE 6837 Pavement Management Systems (3). Theory and principles of pavement management systems (PMS), including PMS at network and project level, PMS strategies, and PMS software packages used for decision making process. Prerequisites: TTE 5835 or permission of the instructor.

URP 5312 Urban Land Use Planning (3). Elements of the general land use plan, location and space requirements; the use of models in planning; development

of the land use plan; policy plan, implementation.
Prerequisite: Permission of the instructor.

URP 5316 Environmental and Urban Systems (3). Overview of basic issues and principles of environmental and urban planning/design systems. Emphasis will be placed on multidisciplinary linkages.

URP 5912 Research Methods (3). Methods of information search, data interpretation, and hypotheses formulation used in the field.

URP 6222 Urban Regional Analysis (3). The urban areas as a complex system; modeling the urban growth processes; statistical decision making games; modeling and simulation; cost effectiveness; application of the theory; a system-wide view of the Miami area.
Prerequisite: Permission of the instructor.

URP 6317 Advanced Environmental and Urban Systems (3). To study the application of physical planning and design concepts and their environmental, infrastructural and social impacts.

URP 6906 Independent Study (1-3). Specialized individual studies in Environmental and Urban Systems.
Prerequisite: Permission of the instructor.

URP 6935 Special Topics (3). Intensive treatment of specific subjects in the field of environmental and urban systems. Topics will vary depending upon the interest of students and faculty.

URP 6937 Final Project (1-3). Individual work culminating towards professional practice that also meets a degree requirement of the Master of Environmental and Urban Systems program. Prerequisite: Permission of the instructor.

Construction Management

Irtishad U. Ahmad, Ph.D., P.E., *Professor and Chairperson*

Syed M. Ahmed, Ph.D., *Associate Professor and Graduate Program Director*

Ronald A. Baier, P.E., *Instructor and Undergraduate Advisor*

Mehmet Emre Bayraktar, Ph.D., *Assistant Professor*

José Faria, Ph.D., *Assistant Professor*

Eugene D. Farmer, A.I.A., *Associate Professor and Undergraduate Program Director*

José D. Mitrani, P.E., CPC, CGC, *Associate Professor*

Boong-Yeol Ryoo, Ph.D., *Assistant Professor*

Yimin Zhu, Ph.D., CCE, *Assistant Professor*

Master of Science in Construction Management

The master's degree is rapidly becoming the entry level requirement for middle and upper level managerial positions in the construction industry. The primary goal of this program is to provide the knowledge and advanced skills essential for success in these positions. The program is flexible enough to accommodate graduates from other disciplines who may lack an undergraduate background in construction management.

Students who hold four year undergraduate degrees in construction management may complete the masters degree in one academic year as full-time students. Equivalent degree related fields would include studies in construction drawings, construction materials and methods, construction accounting and finance, economic planning, structures, site work, legal aspects of construction, cost estimating, construction scheduling and business management/finance. Students with deficiencies in these fields may need longer residence for the master's degree, as they will be required to take specified basic undergraduate courses.

Admission Application

Students desiring to enter the Construction Management graduate program must formally apply to the University for acceptance at <http://gradschool.fiu.edu>. Students can also send their application material to:

Florida International University
College of Engineering
Dean's Office
Admissions Coordinator
10555 West Flagler Street
Miami, FL 33174
Email: grad_eng@fiu.edu
Fax: (305) 348-6142

See the graduate admission section in this catalog for graduate application instructions.

Admission Requirements

In order to be admitted, applicants should hold a Bachelor's Degree in Construction, Construction Management, Architecture, Engineering, Business or equivalent related fields. Students with baccalaureate degrees in other fields may be accepted with the understanding that they may be required to take specified basic undergraduate courses as determined by the Graduate Program Director, to provide an adequate background for more advanced courses. In addition,

applicants must have earned a minimum grade point average (GPA) of 3.0 in the upper division course work related to their undergraduate degree.

Eligibility for admission for those students whose upper division undergraduate GPA is less than 3.0 (on a 4.0 scale) may be evaluated on the basis of one or more of the following:

- Letters of reference
- Work experience
- GRE or GMAT scores
- Other relevant factors, including but not limited to, awards, recognitions, published journal articles, conference presentations, etc.

Applicants who do not satisfy the GPA requirement will be evaluated by the Department's Graduate Program Director based on the factors identified earlier, and may be recommended for admission on a provisional/conditional status.

TOEFL

In addition to the above criteria, international graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Curriculum

Students seeking to obtain a Master of Science in Construction Management have a choice of either a thesis or a non-thesis option. Students have to complete 30-36 semester hours including thesis. Students with a Bachelor of Science (BS) degree in Construction Management must complete at least 30 semester hours to graduate. Students with a BS degree in Engineering or a BA degree in Architecture must complete at least 33 semester hours to graduate. All other students with undergraduate degrees in disciplines such as business, accounting, finance, etc. must complete at least 36 semester hours to graduate. The thesis option consists of a minimum of 24-30 semester hours of course work and 6 semester hours of thesis. The non-thesis option consists of 30-36 semester hours of course work and may include up to 6 semester hours of independent studies. A student shall not register for masters thesis without first having received the approval from his/her thesis supervisor and the Chairperson of the Department. A student may not register for independent studies without the approval of his/her advisor, and the Chairperson of the Department.

Course Requirements

Graduate credit is awarded for courses numbered 5000 and above. The work in the major field must be in courses numbered 5000 or above. For work outside the major, up to two courses numbered 4000-4999 may be taken provided they are part of a plan of study approved by the student's supervisory committee or the Department Graduate Committee, whichever is applicable, and prior approval is obtained from the Chairperson of the Department. Approval must be obtained in writing prior to the student registering for such a course.

Students with deficiencies in the areas designated as equivalent related fields will be required to take 3000 and 4000 level courses in Construction Management in order to provide the proper foundation for advanced courses. Students required to take these prerequisite courses are

advised to register them for the 'P' or 'F'(Pass or Fail) grade. All grades other than "P" grades (regardless of course level) will be counted when calculating the student's graduate grade point average.

The program of course work for a masters degree must be approved by the student's advisor, supervisory committee (if thesis option), and Department Chairperson. No more than six credits from a previous masters degree program may be applied toward a second masters degree. These credits are applied only with the written approval of the Department Chairperson and the Dean of the College of Engineering and Computing.

Transfer of Credit

Only graduate (5000 - 7999) level work to the extent of two courses, totaling not more than six semester hours, earned with a grade of 'B' or better may be transferred from another institution, or from postbaccalaureate work at the University except as noted otherwise in this catalog. Credits transferred from other universities may be applied toward meeting the degree requirements but the grades earned will not be computed in the student's grade point average. Acceptance of transfer of credit requires approval of the student's advisor and the Department Chairperson. Petitions for transfer of credit for a masters degree should be made during the student's first term of enrollment in the masters program.

Supervisory Committee

Students who choose the thesis option should request the appointment of a supervisory committee as soon as possible after admission into the program, but in no case later than the second semester of graduate study. Supervisory committees for graduate degree programs are nominated by the student's graduate advisor and approved by the Department Chairperson, College Dean, and the Dean of the University Graduate School. The student's proposed plan of study must be approved, in writing, by the student's graduate advisor, the supervisory committee and the Department Chairperson.

Masters Thesis

A student choosing the thesis option must, as part of his/her plan of study, prepare a written proposal of the thesis work planned. This proposal must adhere to all University and Department regulations concerning format and content. Once this proposal is approved, in writing, by the student's graduate advisor, his/her supervisory committee, the Department Chairperson, and the College Dean, the student will be permitted to register for masters thesis. The student must be enrolled in at least one thesis credit hour the semester the proposal is submitted to the University Graduate School.

Examination

A final oral examination, which is primarily a defense of the thesis research, is required for thesis masters candidates. A passing grade must be obtained in order to qualify for graduation. The examination will be administered by his/her supervisory committee.

Special Student

Students wishing to enroll in courses during the application process may do so as a special student (non degree seeking). No more than 12 semester credits of work taken as a special student can be applied towards graduation. Students taking courses under the special student

designation should consult other sections of this catalog for pertinent regulations covering the special student status.

General Regulations Grades

The Department of Construction Management requires a minimum grade point average of 3.0 in all courses taken towards a masters degree. The minimum acceptable grade for any work attempted as a graduate student is a "C."

Grade of Incomplete

A grade of "I" (Incomplete) may be granted, at the option of the Instructor, to a student who, due to serious, documented, and verifiable extenuating circumstances beyond his/her control is unable to complete the work required to obtain a grade for a course.

A student granted a grade of "I" must complete the work deemed necessary by the instructor as quickly as possible. Work must be completed within two semesters after the grade was assigned to the student, or the grade will automatically revert to a grade of "F" (failing grade).

Graduation

In order to be eligible to graduate the student must have successfully completed his/her plan of study as established with the student's graduate advisor, his/her supervisory committee (if applicable), and the Department Chairperson. This includes completion of all applicable graduate course work with an overall minimum grade point average of 3.0. A student choosing the thesis option must also have submitted a complete masters thesis, whose format, content, and presentation must be acceptable to and approved by his/her graduate advisor, supervisory committee, Department Chairperson, College Dean, and the Dean of the University Graduate School.

Students should contact an advisor at least one semester prior to their projected graduation and request a review of their file. At the start of the final semester the student is required to complete an Application for Graduation. If for any reason a student fails to graduate in the semester after applying for graduation, the student must reapply for graduation and enroll for at least one graduate credit.

It is the student's responsibility to ascertain that all requirements for graduation, as stated in the University Catalog and in the Department Program sheets, have been met.

Foundation Courses

Students (CM majors) requiring 30 credit hours to graduate cannot take any of the foundation courses. Students requiring 33 credit hours to graduate must take three courses (9 credits) from the foundation courses listed below – unless exempted by the Graduate Program Director. Students requiring 36 credits to graduate must take four courses (12 credits) from the list of foundation courses given below – unless exempted by the Graduate Program Director.

BCN 5618	Fundamentals of Construction Estimating	3
BCN 5645	Construction Economic Analysis	3
BCN 5728	Principles of Construction Scheduling	3
BCN 5766	Codes and Regulations	3
BCN 5746	Construction Legal Environment	3

BCN 5406	Principles of Building Structures for Construction Management	3
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Construction Management Electives

Depending on the academic background of the student, the balance of 30-36 credits is to be taken from the list below. Thesis students may take up to 6 credits of BCN 6971, and all students may take up to 6 credits of BCN 5905 (see note below).

BCN 5022	Housing for Developing Countries	3
BCN 5588	Vulnerability Analysis	3
BCN 5589	Hazard Mitigation	3
BCN 5626	Construction Cost Analysis & Control	3
BCN 5706	Interdisciplinary Aspects of Housing	3
BCN 5716	Productivity in Construction	3
BCN 5735	Hazardous Materials & Waste in Construction	3
BCN 5738	Construction Safety Management	3
BCN 5747	Construction Law Case Studies	3
BCN 5749	Advanced Construction Documentation	3
BCN 5755	Construction Financial Management	3
BCN 5771	Management & Marketing of Const. Services	3
BCN 5772	Management of Construction	3
BCN 5784	Organizations Construction Information Systems ¹	3
BCN 5792	Total Quality Management and Planning in Construction	3
BCN 5905	Directed Independent Studies ¹	1-3
BCN 5906	Special Topics	3
BCN 5949	Graduate Construction Management Internship	1
BCN 6473	Systems Approach for Housing Planning	3
BCN 6642	Value Engineering in Construction	3
BCN 6775	Decision & Risk Analysis in Construction	3
BCN 6785	Advanced Estimating and Bidding Strategy	3
BCN 6788	Artificial Intelligence in Construction Management	3
BCN 6910	Supervised Research ¹	1-3
BCN 6916	Developments in Construction Technologies	3
BCN 6935	Graduate Seminar	3
BCN 6971	Thesis ¹	3

(Total of 6 credit hours spread over at least two consecutive terms with 3 credit hour in each)

¹Note: A student shall not register for BCN 5905 or BCN 6971, without the approval of his/her advisor, and the Department Chairperson. Not more than 3 credit hours of BCN 5905 or BCN 6971 may be taken in any one semester.

Graduate Certificate in Construction Engineering & Management (CEM)

This certificate program is open to students with a Bachelor's Degree in civil engineering, construction management, construction engineering, architecture, architectural engineering and other closely related fields of study from an accredited institution. The **CEM** program develops construction management techniques related to the technological environment of the construction industry.

The program blends a carefully chosen mix of civil engineering and construction management courses designed to provide specialization opportunities in Construction Engineering & Construction Management. The skills, concepts and techniques learned will be related to, but not dependent upon knowledge of construction and engineering with an emphasis on construction management and organizational skills appropriate for the professional construction manager.

Applicants for the program will be required to meet the same entrance standards as those applying to the Master of Science program. Credits earned in the program with a BCN prefix and up to 3 courses with a CCE or CGN prefix with a grade of "B" or better are fully transferable towards a Masters of Science in Construction Management.

To earn a Graduate Certificate in **CEM**, the students must successfully complete the program's core and elective courses with a minimum grade point average of 3.0, and have no grade lower than "C". The program consists of 18 credit hours – 6 courses (3 core courses + 3 electives) of 3 credit hours each. These courses cover functional areas of construction management and specialized technical and engineering functions.

Required CEM Courses:

BCN 5645	Construction Economic Analysis
CCE 5035	Construction Engineering Management
BCN 5728	Principles of Construction Scheduling

Electives CEM Courses:

BCN 5626	Construction Cost Analysis & Control
BCN 6775	Decision & Risk Analysis in Construction
BCN 6916	Developments in Construction Technology
BCN 5774	Topics in International Construction
CCE 5505	Computer Integrated Construction
CGN 5315	Civil Engineering Systems
BCN 5716	Productivity in Construction

Additional information about this program can be found at:

URL: www.cm.fiu.edu

E-mail: cminfo@eng.fiu.edu

Tel: (305) 348-3172

Fax: (305) 348-6255

Course Descriptions

Definition of Prefixes

BCN-Building Construction

Student programs of study in the graduate level program are carefully designed and sequenced following consultation with a graduate faculty advisor. Appropriate prerequisite course work is assigned on the basis of individual needs.

BCN 5022 Housing for Developing Countries (3). Problems faced by developing countries in housing their population. Political, economic, social, and technical considerations in decision process.

BCN 5406 Principles of Building Structures for Construction Management (3). Applications of the principles of mechanics to engineering problems of equilibrium, strength, and stiffness. Topics include equilibrium of forces, stress, strain, torsion, beams, and columns.

BCN 5585 Sustainable Construction (3). Study of the concepts and techniques of sustainable construction, in depth review of sustainable materials and construction techniques. Prerequisite: Permission of the instructor.

BCN 5588 Vulnerability Analysis (3). Assessment of risk and potential for damage to a community or facility from the impact of natural or anthropogenic hazards. Physical and construction related issues.

BCN 5589 Hazard Mitigation (3). Reducing potential damage to the built environment from natural hazards, including hurricanes, floods, earthquakes, explosions. Benefit-cost analysis. Regulatory problems.

BCN 5618 Fundamentals of Construction Estimating (3). Principles and practices of estimating, providing application, and drill in surveying quantities of labor and materials for general construction projects: excavation, concrete and formwork, carpentry, masonry, structural steel, lath and plaster, interior finishes.

BCN 5622 Advance Planning and Simulation for Construction (3). The application of advanced planning, scheduling, and simulation techniques and concepts to construction processes and operations.

BCN 5626 Construction Cost Analysis and Control (3). Description of different types of estimating techniques in relation to different stages in a construction project. Productivity analysis, measurement of progress, and techniques of cost control are covered.

BCN 5645 Construction Economic Analysis (3). Nature of construction costs, funding sources and arrangements, capital requirements, bonding, insurance, risk and contingency evaluation, general office operations, and bidding procedures.

BCN 5706 Interdisciplinary Aspects of Housing (3). Recognition and definition of those factors which affect the planning, financing, and construction of housing projects. The operations and responsibilities of a multidisciplinary team dealing with decision process. This course takes a critical look at the housing delivery system to include: how the housing industry operates, various technologies prevalent in housing construction, and constraints to housing. The course will also look at the future, examining problems and forces that will shape opportunities.

BCN 5716 Productivity in Construction (3). An in-depth study of common issues relating to productivity improvements in construction.

BCN 5728 Principles of Construction Scheduling (3). The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduling vs. actual job expenditures. Cost forecasting development of unit prices from field data. Laboratory is included which consists of computer applications.

BCN 5735 Hazardous Materials and Waste in Construction (3). Discussion of the common hazardous materials and waste regulations found in construction activities.

BCN 5738 Construction Safety Management (3). Introduce the graduate student in Construction Management to the important elements essential in managing the safety function of a construction company.

BCN 5741 Construction Claims (3). Construction claims, administration, and avoidance. Covers the importance of construction contract errors, unforeseen and changed conditions, disruptions, acceleration, termination, and proving of claims.

BCN 5746 Construction Legal Environment (3). Legal and business aspects of engineering contracts and specifications in the construction industry. Analysis, study of precedents, and application of contract clauses, including changes, changed conditions, termination, disputes, payments, risk and insurance, inspection, liquidated damages, and technical requirements.

BCN 5747 Construction Law Case Studies (3). Case study and analysis of reported appellate decisions on common construction law issues; licensing; bid disputes; contract issues; construction lien law; surety problems; and unresolved claims.

BCN 5749 Advanced Construction Documentation (3). Advanced Construction Documentation (3). Construction related documentation requirements for avoidance of litigation before, during, and after completion of construction projects; dispute resolution processes for construction operations. Prerequisite: BCN 5746.

BCN 5755 Construction Financial Management (3). Money management in construction operations: financing, funding, sources of money, cash flow, disbursement, liability and bonding, cost and managerial accounting, and profit analysis.

BCN 5766 Codes and Regulations (3). Study of building codes required by local, county, and state levels and their relation to quality control.

BCN 5771 Management and Marketing of Construction Services (3). Human effectiveness in marketing construction management services in the public and private sectors.

BCN 5772 Management of Construction Organizations (3). This course studies the management of a construction company. Topics included are: company organization, incorporation structures, policies and procedures, finance, accounting, information modeling, bidding strategies, and operation.

BCN 5774 Topics in International Construction (3). Introduction to procurement, financing and management of international construction projects with emphasis on international economics, contracts, trade agreements and specifications.

BCN 5784 Construction Information Systems (3). The application of information management techniques, including computer hardware and software systems, to the analysis and solution of typical problems in the practice of construction management.

BCN 5792 Total Quality Management and Planning in Construction (3). The application of TQM philosophy and tools developed by Deming, Juran, Crosby and ISO 9000 standards to solving construction industry related problems will be discussed. Strategic planning as it relates to construction will also be covered in this course.

BCN 5905 Directed Independent Studies (1-3). Individual studies under supervision of faculty, tutor, or

advisor. Requires prior approval of advisor and Chairperson.

BCN 5906 Special Topics (1-3). Intensive study for small group of students in a particular topic, or a limited number of topics not otherwise offered in the curriculum.

BCN 5949 Graduate Construction Management Internship (1). Supervised work in construction management. Evaluation and reports required. Prerequisites: Consent of advisor and Department Chairperson.

BCN 6473 Systems Approach for Housing Planning (3). Discussions of basic concepts of systems analysis and systems approach to the field of housing planning. The advantage of systems approach. Case studies.

BCN 6642 Value Engineering in Construction (3). Relationship of costs to time and life cycle of construction projects, and methods to improve the economic value of construction projects.

BCN 6775 Decision and Risk Analysis in Construction (3). Techniques of decision analysis for the medium to top level management personnel in the construction industry. Typical construction related problems that involve risk and uncertainty are studied.

BCN 6785 Advanced Estimating and Bidding Strategy (3). Application of computer software to rigorous exercises in construction estimating. Cost information related to construction with applications in current practice.

BCN 6788 Artificial Intelligence Applications in Construction Management (3). The course presents a study of the concepts, techniques, and applications of AI technology in the construction management domain.

BCN 6795 Automation in Construction (3). In depth introduction and analysis of automation technologies in construction, covering issues related to the application, implementation and evaluation of automation technologies throughout the lifecycle of a construction process for smart jobsites. Prerequisite: Permission of the instructor.

BCN 6796 Construction Failures (3). Discussion of issues and presentation of case studies related to failures of construction projects. Prerequisite: Permission of the instructor.

BCN 6910 Supervised Research (1-6). Graduate level research carried out under the supervision of a faculty member.

BCN 6912 Project in Construction Engineering and Management (3). Independent research work culminating in a professional practice oriented report for the requirements of the project-option of the Masters degree in construction engineering of construction management. Prerequisites: Fifteen graduate credits and approved project plan.

BCN 6916 Developments in Construction Technologies (3). Study of advanced field techniques and emerging uses worldwide. Information flow and creativity are highlighted as crucial elements which stimulate new developments. This course prepares the students to understand and deal with concepts of change. Prerequisite: BCN 5716.

BCN 6935 Seminar on Construction Management (3). Advanced study of problems, trends, and issues in a time of rapid change in building and management technology. Topics selected or developed by class.

BCN 6971 Thesis (3). (Total of 6 credit hours spread over at least two consecutive terms with 3 credit hours in each must be completed.) Students develop a thesis under the direction of a senior faculty mentor, and their supervisory committee, and advance and defend their propositions before an audience of peers, scholars, and their supervisory committee. Requires approval of advisor, supervisory committee, and Department Chairperson.

Electrical and Computer Engineering

Kang Yen, *Chairperson and Professor*

Malek Adjouadi, *Professor*

Jean Andrian, *Associate Professor*

Wilmer Arellano, *Instructor*

Tadeusz Babij, *Professor*

Armando Barreto, *Associate Professor*

Amaury Caballero, *Lecturer and Undergraduate Program Advisor*

Zesheng Chen, *Assistant Professor*

Jeffrey Fan, *Assistant Professor*

Stavros Georgakopoulos, *Assistant Professor*

W. Kinzy Jones, *Professor*

Grover Larkins, *Professor*

Kia Makki, *Lucent Technology Professor*

Walter Maldonado, *Undergraduate Program Advisor*

Osama Mohammed, *Professor*

Deng Pan, *Assistant Professor*

Roberto Panepucci, *Assistant Professor*

Niki Pissinou, *Professor and Director,*

Telecommunications and Information Technology Institute

Gustavo Roig, *Professor and Director, Center for Diversity in Engineering and Computing*

Pierre Schmidt, *Undergraduate Program Director, Visiting Professor*

Frank Urban, *Associate Professor*

Yuriy A. Vlasov, *Assistant Professor*

Subbarao Wunnava, *Professor*

Hao Zhu, *Graduate Program Director, Assistant Professor*

Master of Science in Electrical Engineering

The Department of Electrical and Computer Engineering offers both thesis and non-thesis options for the Master's Degree. The program provides a broad and multidisciplinary education, followed by in-depth studies of areas of interest.

All work counted for the Master's degree must be completed during the 5 years immediately following the date of admission.

Admission Requirements

The following is in addition to the University Graduate School admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, physical sciences, computer science or mathematics from an accredited institution, or, in the case of foreign students, from an institution recognized in its own country as preparing students for further study at the graduate level.

2. An applicant must have a GPA score of 3.0 or higher in upper level undergraduate work.

3. Applicants who have not satisfied the above score may be evaluated for conditional admission

4. International students whose native language is not English, must take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System Test (IELTS). Minimum required score is: 550 on the paper-based test (PBT TOEFL), or 213 on the

computer-based test (CBT TOEFL), or 80 on the iBT TOEFL, or 6.3 overall on the IELTS test.

5. Applicants from science areas other than electrical or computer engineering will be expected to complete sufficient background material at the undergraduate level prior to unconditional acceptance into the graduate program.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Department.

2. Certification by the Dean of the School that all requirements of the degree being sought have been completed.

3. A GPA of at least 3.0 has been earned for certain courses required by the program.

4. Met the undergraduate deficiencies, if any existed in the student's graduate program, as additional courses toward the degree.

5. Completed the required semester hours of graduate level credit (not more than 6 graduate semester hours with a grade of "B" or higher can be transferred from other accredited institutions).

6. Successful defense of an acceptable graduate thesis if required by the program.

7. Students must maintain an overall GPA of 3.0. No grade below "C" will be accepted in a graduate program. In the event that a student is placed on a probationary status, he or she must obtain a directed program from his or her advisor and approved by the Dean prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.

8. Complied with all University policies and regulations.

Thesis Option

A student must complete 24 semester credit hours of technical course work plus 6 semester credit hours of EEL 6971 - Master's Thesis. The candidate's supervisory committee shall approve an appropriate thesis topic.

The course requirements include a minimum of 12 hours of 6000 level course credit and a minimum of 9 hours at the 5000-6000 level in Electrical Engineering.

Upon the successful completion of all course work, including thesis work, and after the determination by the student's advisor that he or she has completed the objectives of the thesis research, the student must pass a final oral examination which is primarily a defense of the thesis research.

Non-Thesis Option

Students may choose the non-thesis option for their master's degree. The degree requirements differ from the thesis option in two respects. First, the student can petition to be exempt from the thesis requirement, including the 6 credits it entails by substitution of graduate project. Second, the candidate will be required to pass a comprehensive final examination. This exam will be given by a committee selected by the department. The membership of this committee may include faculty and engineers from industry. The exam is intended to test the candidate's general ability in the areas of study and it will be given near the end of the candidate's final semester. A

student who fails the exam may not attempt it again until one semester has elapsed or upon the completion of additional course work prescribed by the examining committee. The exam may be retaken only once.

Math Electives:

Select 2 courses with advisor approval.

EEL 5171	Advanced System Theory	3
EEL 5543	Random Signal Principles	3
EEL 6020	Numerical Analysis of Electrical Devices	3
MAA 4211	Advanced Calculus	3
MAA 4402	Complex Variables	3
MAD 3401	Numerical Analysis	3
MAP 4401	Advanced Differential Equations	3
MAP 5117	Mathematics and Statistics Modeling	3
STA 5446	Probability Theory I	3
STA 5447	Probability Theory II	3
STA 5800	Stochastic Processes for Engineering	3

The above list may be changed or expanded by the committee.

Remaining course work will be selected by the student and his advisor based on the student's career objectives.

Any course taken without the proper prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of "DR" or "DF".

Students, who are dismissed from the University due to low grades, may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

5 Year Accelerated Combined BS/MS in Electrical Engineering Program

Students who pursue a BS degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the MS program. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six hours of ECE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. During this combined BS/MS program, upon completion of all the requirements of the undergraduate program, students will receive their BS degree. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other students, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of EE graduate courses toward the elective engineering BSEE requirements as well as toward the MSEE degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Master of Science in Computer Engineering

The Department of Electrical and Computer Engineering offers both thesis and non-thesis options for the Master's Degree.

All work counted for the Master's degree must be completed during the 5 years immediately following the date of admission.

The program provides a broad and multidisciplinary education, followed by in-depth studies of areas of interest.

Admission Requirements

The following is in addition to the University Graduate School admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, physical sciences, computer science or mathematics from an accredited institution, or, in the case of foreign students, from an institution recognized in its own country as preparing students for further study at the graduate level.

2. An applicant must have a GPA score of 3.0 or higher in upper level undergraduate work.

3. Applicants who have not satisfied the above score may be evaluated for conditional admission.

4. International students whose native language is not English, must take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System Test (IELTS). Minimum required score is: 550 on the paper-based test (PBT TOEFL), or 213 on the computer-based test (CBT TOEFL), or 80 on the iBT TOEFL, or 6.3 overall on the IELTS test.

5. Applicants from science areas other than electrical or computer engineering will be expected to complete sufficient background material at the undergraduate level prior to unconditional acceptance into the graduate program.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Department.

2. Certification by the Dean of the School that all requirements of the degree being sought have been completed.

3. A GPA of at least 3.0 has been earned for certain courses required by the program.

4. Met the undergraduate deficiencies, if any existed in the student's graduate program, as additional courses toward the degree.

5. Completed the required semester hours of graduate level credit (not more than 6 graduate semester hours with a grade of "B" or higher can be transferred from other accredited institutions).

6. Successful defense of an acceptable graduate thesis if required by the program.

7. Students must maintain an overall GPA of 3.0. No grade below "C" will be accepted in a graduate program. In the event that a student is placed on a probationary status, he or she must obtain a directed program from his or her advisor and approved by the Dean prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.

8. Complied with all University policies and regulations.

Thesis Option

A student must complete 24 semester credit hours of technical course work plus 6 semester credit hours of EEL 6971 - Master's Thesis. The candidate's supervisory committee shall approve an appropriate thesis topic.

The course requirements include a minimum of 12 hours of 6000 level course credit and a minimum of 9 hours at the 5000-6000 level in Computer Engineering.

Upon the successful completion of all course work, including thesis work, and after the determination by the student's advisor that he or she has completed the objectives of the thesis research, the student must pass a final oral examination which is primarily a defense of the thesis research.

Non-Thesis Option

Students may choose the non-thesis option for their master's degree. The degree requirements differ from the thesis option in two respects. First, the student can petition to be exempt from the thesis requirement, including the 6 credits it entails by substitution of graduate project. Second, the candidate will be required to pass a comprehensive final examination. This exam will be given by a committee selected by the department. The membership of this committee may include faculty and engineers from industry. The exam is intended to test the candidate's general ability in the areas of study and it will be given near the end of the candidate's final semester. A student who fails the exam may not attempt it again until one semester has elapsed or upon the completion of additional course work prescribed by the examining committee. The exam may be retaken only once.

Computer Engineering Courses

EEL 5718	Computer Communication Network Engineering
EEL 5725	Digital Systems Engineering I
EEL 5741	Advanced Microprocessor Systems
EEL 6167	VLSI Design
EEL 6726	Advanced VLSI Design
EEL 6575	Data Communications Engineering
EEL 6444	Optical Fiber Communications Systems
EEL 6505	Digital Signal Processing
EEL 6509	Digital Communications by Satellite
EEL 6253	Computer Analysis of Power Systems
EEL 6681	Fuzzy System Design
EEL 6758	Engineering Design of Microprocessor Based Operating Systems
EEL 6821	Computer Vision
EEL 5757	Real-Time DSP Implementations
EEL 6812	Advances in Neural Networks
EEL 6870	Intelligent Computer Design
EEL 6751	Wavelet Theory Applied to Signal Processing

Electives Computer Science: (3)

Courses may be selected by student and advisor from 4000, 5000, and 6000 level Computer Science course listings.

The above lists may be changed or expanded by the supervisory committee.

5 Year Accelerated Combined BS/MS in Computer Engineering Program

Students, who pursue a Bachelor of Science degree in Computer Engineering and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three ECE faculty members, apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the master's degree program. In addition to the admission requirements of the combined program, students must meet all the admission requirements of the University Graduate School. Students enrolled in the program may count up to six hours of ECE graduate courses as credits for both the BS and MS degrees. The BS/MS combined program has been designed to be a continuous program. Students in this program have one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post B.S. requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other students, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of CpE graduate courses toward the elective engineering BSCpE requirements as well as toward the MSCpE degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate coordinator to learn about the graduate program and available courses before completing the application from and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Master of Science in Telecommunications and Networking

The Master of Science in Telecommunications and Networking is intended to educate individuals seeking employment with hardware and/or software companies, service providers, large user organizations, or telecommunications regulatory agencies as well as for those who are employed by these companies/organizations and wish to obtain formal, higher-level, specialized degree in Telecommunications and Networking. Telecommunication and Networking students learn how to lead in the ever changing environment of real-time global information networking, telecommunications, wireless and optical strategies and how to amplify business value through communications,

technologies and systems. All courses in the program are categorized under the five following areas. IT2 offers thesis and non-thesis options for the Master's Degree. The Master is a multidisciplinary program that offers two tracks:

- **Systems and Networks:** Focuses on technical aspects of the design of data networks, software, and hardware. A student must have a bachelor's in computer science, electrical, computer, or telecommunications engineering, mathematics, physics or related field.
- **Management and Policy:** It provides the necessary education for individuals involved with service providers, large user organizations and government regulators. A student must have a bachelor's degree in engineering, information systems, technology or sciences. The Doctoral Program is in Electrical Engineering and Industrial and Systems.

Admissions Requirements

1. In addition to the FIU graduate requirements, a student admitted to the program must have a bachelor's degree in a related field from an accredited institution, in the case of foreign students, from an institution recognized in its own country as preparing students to continue studies at the graduate level.
2. An applicant must have a GPA score of 3.0 or higher in upper level work.
3. International students whose native language is not English, must take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System Test (IELTS). Minimum required score is: 550 on the paper-based test (PBT TOEFL), or 213 on the computer-based test (CBT TOEFL), or 80 on the iBT TOEFL, or 6.3 overall on the IELTS test.
4. The University's required GPA and TOEFL scores are to be considered minimum requirements for admissions.

Graduate Requirements

The degree will be granted when the following criteria has been met:

1. Recommendation of Advisor and faculty of the Department.
2. Certification by the Dean of the School that all requirements have been met.
3. A GPA of at least 3.0 has been earned for certain courses required in the program. Maintain an overall GPA of at least 3.0. No grade below "C" will be accepted in any course taken to satisfy graduate program requirements.
4. Completion of all graduate required semester hours of graduate level (not more than 6 with a grade of "B" or better can be transferred from other institution).
5. Successfully defense of an acceptable thesis, or individual project required by the program.

Telecommunications and Networking Courses

Network Area:

TCN 6210	Telecommunications Network Analysis and Design
TCN 6230	Optical Networks
TCN 6270	Mobile and Wireless Networks
TCN 6275	Mobile Computing
TCN 6260	Internetworking

Engineering Area:

TCN 5150	Multimedia Computer Communications
TCN 5455	Information Theory

Software Area:

TCN 5440	Software Development for Telecommunications Networks
TCN 5445	Telecommunication Network Programming
TCN 6420	Modeling and Performance Evaluation of Telecommunications Networks
TCN 6430	Networks Management and Control Standards
TCN 6450	Wireless Information Systems

Technology Area:

TCN 5010	Telecommunications Technology Applications
TCN 5030	Computer Communications and Networking Technologies
TCN 5060	Telecommunications Software and Methodologies
TCN 5080	Secure Telecommunications Transactions

Management Area:

TCN 5640	Telecommunications Enterprise Planning and Strategy
TCN 6630	Economics of Telecommunications Systems

Policy Area:

TCN 6820	Telecommunications Industry Development
TCN 6880	Telecommunications Public Policy Development and Standards

5 Year Accelerated Combined BS in Electrical Engineering/MS in Telecommunications and Networking Program

Students who pursue a BS degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the MS program. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six credit hours of Telecommunications and Networking graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. During this combined BS/MS program, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post B.S. requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of Telecommunications and Networking graduate courses toward the elective BSEE requirements as well as toward the MS in Telecommunications and Networking degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Doctor of Philosophy in Electrical Engineering

Admission Requirements

The requirements for admission to the doctoral program in Electrical Engineering are:

1. Applicants having a Master's degree in Electrical Engineering from an accredited institution must satisfy the following requirements for admission to the doctoral program:

- GPA of at least 3.3/4.0 in the master's program
- GRE verbal plus quantitative of at least 1120 points
- Three letters of recommendation in the forms provided by the department
- International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

2. Credentials of all other applicants will be examined by the Graduate Admission Committee on a case by case basis.

In addition to the departmental requirements, all students must satisfy the University's Graduate Policies and Procedures.

Identification of Research Area

Within 12 months upon acceptance into the Ph.D. program, the student has to identify an area of research of his or her interest by contacting and being accepted by a professor willing to guide the dissertation research. If no such professor can be found, the student will be dismissed from the Ph.D. program. Contact the Department for a list of the graduate faculty members and their research interests.

Course Requirements

At least 78 credit hours beyond the bachelor's degree, including a maximum of 30 credit hours of course work, with a minimum grade of "B" in each course, earned in a Master's degree in Electrical Engineering received at FIU or another accredited institution. The credit hours earned towards the Ph.D. program have the following requirements and restrictions:

1. At least 12 credits of Ph.D. Course Breadth Requirements.
2. At least 12 credits of course work at 6000 level of major field of interest.
3. Registration for Advanced Research is allowed only after successfully having passed the written comprehensive examination.
4. Registration for EEL 7980 (Research for Doctoral Dissertation) is allowed only after the student is admitted to candidacy. At least twenty-four dissertation hours are required.
5. At least 24 credit hours of 5000 or 6000 level electrical engineering courses are required. EEL 5935, 6905, 6916, 6932, 6971, 6977, and 7980 are not considered course work for the purpose of this 24 credit hours requirement.
6. Fifty percent of the hours accumulated have to be at the 6000 and 7000 level (including EEL 7980).

Residency Requirements

The Ph.D. student must spend at least one academic year in full-time residency. Usually, this will be after being admitted to candidacy. To satisfy the residency requirement for a Ph.D. E.E. degree, the candidate must complete a minimum of 18 credit hours within a period of 12 months in residency at the University.

Graduate Supervisory and Research Committee

The student's Ph.D. Graduate Supervisory and Research Committee should be appointed as soon as possible and not later than 15 months after being admitted to the Ph.D. program. Consult the Graduate Guidelines in the Department for more details on how to select the committee members.

Ph.D. Course Breadth Requirements

All potential Ph.D. candidates are required to take two two-course sequences for a total of 12 credits outside of their major area and receive a grade of "B" or better in each course. The appropriate areas of study are determined by the dissertation advisor. The student must submit to the Graduate Coordinator the sequences selected when he or she signs up for the Ph.D. E.E. Qualifying Examination.

Qualifying Examination

To be eligible for the written qualifying examination, the student must have satisfied the Ph.D. course breadth requirements in his or her area of specialization and in two other areas. The students can take the candidacy examination no earlier than the semester in which all the required coursework for the degree is completed. Failure to do this is causation for dismissal from the Ph.D. program.

The student must pass all three areas of the examination. Failing one area implies failure of the entire examination. The exam must be retaken the next time it is offered. Failing a second time is causation for dismissal from the Ph.D. program.

Consult the Graduate Guidelines available in the department for details on examination procedures, dates, duration, application and grading criteria.

Proposal Defense

Proposal defense must be taken within one semester after the satisfactory completion of the qualifying examination.

Admission to Candidacy

Candidacy status indicates that a doctoral student is ready to commence working the dissertation. A student is admitted to candidacy upon successfully completing all required course work and passing the qualifying examination and proposal defense.

Oral Defense and Submission of Doctoral Dissertation

A dissertation is required of all candidates for the doctoral degree. A proposal must be submitted to the student's Research Committee for approval, following the general guidelines in the "Regulations for Thesis and Dissertation Preparation". A student must enroll for dissertation credits in the semester in which he or she expects to be admitted to candidacy, and must maintain continuous enrollment for not less than 3 credits of EEL 7980 every semester, including Summers, until the semester in which the doctoral degree is awarded. Upon completion of the dissertation, the degree candidate will submit to the Dean of the Graduate School an application for dissertation defense signed by the student's Advisory Committee with sufficient time to allow for publishing a notice in the monthly calendar of dissertation and theses defenses to invite members of the university community to observe the defense.

Following the successful defense of the dissertation, as determined by a majority vote of the student's research committee, the dissertation must be forwarded to the Dean of the College of Engineering and the Dean of the Graduate School for their approval.

All dissertations submitted in fulfillment of requirements for graduate degrees must conform to University guidelines (see "Regulations for Thesis and Dissertation Preparation"). One final, approved copy of the dissertation must be delivered to the Chairperson of the Department of Electrical & Computer Engineering. Library copies must conform to University guidelines, also published in "Regulations for Thesis and Dissertation Preparation".

Financial Aid

Consult the Department for information on research and teaching assistantships available for doctoral students.

Graduate Certificate in Electric Power Engineering and Management (EPEM)

This graduate certificate program is open to all students with a Bachelor's Degree in electrical engineering, computer engineering, and other closely related fields of study from an accredited institution. The **EPEM** program plans to develop managerial talents for a technological environment in the electrical energy industry. The program blends a mix of electrical engineering and management courses. The **EPEM** program is designed to provide specialization opportunities in Electrical Energy area and Management. The skills, concepts and techniques learned will be related to, but not dependent upon, knowledge of power engineering. The emphasis will be on management and organizational skills appropriate for the electrical energy industry.

To earn a graduate certificate in **EPEM**, the students must successfully complete the program's core and elective courses.

The **EPEM** curriculum consists of 18 credit hours – 6 courses. These courses cover functional areas of

electrical power engineering, management and specialized technical and engineering functions.

Courses:

EIN 5322	Engineering Management
ESI 6455	Advanced Engineering Project Management
EIN 5346	Logistics Engineering
EEL 5270	Electrical Transients in Power Systems
EEL 6261	Power Systems Engineering
EEL 6273	Power Systems Stability and Control

Additional information about this program can be found at:

URL: www.eng.fiu.edu/ece

E-mail: mohammed@fiu.edu

Tel: (305) 348-3040

Fax: (303) 348-3707

Academic Standard

The Department of Electrical and Computer Engineering requires that students receive no grade less than a "C", with an overall GPA of 3.0 in order to be awarded the graduate certificate.

Course Descriptions

Definition of Prefixes

EEE - Engineering: Electrical and Electronic

EEL - Engineering: Electrical

TCN - Telecommunications/Networkings

EEE 5261 Bioelectrical Models (3). Engineering models for electrical behavior of nerve and muscle cells, electrode-tissue junctions, volume conductions in tissue and the nervous system as an electrical network. Prerequisites: EEE 4202C or permission of the instructor. (F)

EEE 5275 Bioradiation Engineering: Detection and Measurement (3). Spectrum of radiation sources, types of fields, properties of living tissue, mechanisms of field propagation in tissue. Application in imaging and therapy, hazards and safety. Prerequisites: EEL 4410 or permission of the instructor. (S)

EEE 5348 Digital Electronics (3). Analysis and design of logic gates using saturated and non-saturating elements, transmission gates, interfacing of logic families, bistable circuits, A/D and D/A converters. Prerequisites: EEE 4304 or permission of the instructor.

EEE 5352 Bipolar Junction Transistors (3). Bipolar junction transistor physics. Semiconductor bulk properties at equilibrium and nonequilibrium. PN junction theory. Theory of the bipolar junction transistor. Prerequisites: EEE 3396 or permission of the instructor. (S)

EEE 5353 Field Effect Transistors (3). Field effect device physics and technology. MOS capacitor. DC and AC characteristics of the MOS transistor. The MOS transistor in dynamic operation. Prerequisites: EEE 3396 or permission of the instructor. (F)

EEE 5366 Industrial Electronics (3). A study of solid state devices for the control of power, their applications and limitations in power switching circuits and in the control of physical transducer. Prerequisites: EEL 4213, EEE 4304 or permission of the instructor. (F, every third year)

EEE 5371 High Frequency Amplifiers (3). Analysis and design of high frequency amplifiers and oscillators:

stability, scattering parameters, use of the Smith chart and other practical design tools, noise. Prerequisites: EEE 4304, EEL 4410 or permission of the instructor. (F, every third year)

EEE 5425 Introduction to Nanotechnology (3). Nanoscale electrical, optical and magnetic device operation. Overview of new devices enabled by nanotechnology, methods for fabrication and characterization of nanoscale and devices. Prerequisite: EEE 3396.

EEE 6285 Biosignal Processing I (3). Characterizing biosignals by application of time and frequency domain analytic methods. Comparison of analog and digital processing. Engineering design for VLSI implementations in implantable devices. Prerequisites: EEL 6505 or permission of the instructor. (F)

EEE 6286 Biosignal Processing II (3). Engineering design of advanced systems for processing biosignals. Methods for signal compression. Adaptive systems for automatic recognition. Application of artificial intelligence for signal classification. Prerequisites: EEE 6285 or permission of the instructor. (S)

EEE 6311 Advanced Electronic Systems I (3). Principles of analog and digital electronics network. Advanced analysis, modeling and computer simulation of op amps. Analog design techniques and practical examples are covered. Prerequisites: EEE 4314 or permission of the instructor. (F, alternating years)

EEE 6312 Advanced Electronic Systems II (3). Study of linear properties of electronic systems and design of fault tolerant systems using A/D and D/A and control algorithms. Prerequisites: EEE 6311 or permission of the instructor. (S, alternating years)

EEE 6315 Advanced Solid State Electronics (3). IC technologies, properties and fabrication concepts. Bipolar, MOS, I²L, CCD, bubble technologies. Ion implantation characteristics. Lithography techniques. Prerequisites: EEE 3396, EEE 4304 or permission of the instructor. (SS, every third year)

EEE 6332 Thin Film Engineering (3). Thin films used in microelectronics and optoelectronics; deposition methods; evolution of film microstructure; film growth modeling; introduction to film analysis. Prerequisite: EEE 3396. (SS, alternating years)

EEE 6335 Electrical Transport in Semiconductors I (3). This course focuses on carrier transport fundamentals, beginning at the microscopic level and progressing to the macroscopic effects relevant to semiconductor devices. Prerequisite: EEE 5352. (F, alternating years)

EEE 6337 Electrical Transport in Semiconductors II (3). This course focuses on quantum phenomena occurring in carrier transport in modern small-size semiconductor devices. Prerequisite: EEE 6335.

EEE 6395 Applied Superconductivity (3). Covers the basic physical properties of superconductors. Superconducting devices: squids, memory & logic elements. Emphasis is placed on applications of superconductors. Prerequisites: EEE 3396 and EEL 4410. Corequisite: Permission of the instructor. (S)

EEE 6397 Semiconductor Device Theory (3). Device physics and modeling of GaAs FETs. GaAs analog and digital integrated circuits. Modulation doped field effect transistors. Heterojunction bipolar transistor theory. Prerequisite: EEE 3396. (S)

EEE 6399C Electronic Properties of Materials (3). Properties of materials from which electronic components and structures are fabricated; electrical conduction in metals, semiconductors and insulators; thermal; magnetic; optical. Prerequisite: EEE 3396. (F, alternating years)

EEL 5145 Advanced Filter Design (3). Graduate course in the design and advance analysis of passive and active high order circuits. Use of computer as a design tool. Prerequisites: EEL 4140 or permission of the instructor. (S, alternating years).

EEL 5171 Advanced Systems Theory (3). State-space representations for continuous and discrete-time systems, controllability and observability, pole-zero allocation, Lyapunov stability theorem, state observers. Prerequisites: EEL 3657 or permission of the instructor. (S)

EEL 5270 Electrical Transients in Power Systems (3). Traveling waves on transmission and multi-conductor systems, successive reflections, distributed parameter systems, transients on integrated power systems. Prerequisites: EEL 4213 or permission of the instructor.

EEL 5275 Power Systems Protection (3). Analysis of power systems under faulted conditions using linear transformation. The study of surge, transient and waves on power lines. Computer-aided analysis and design emphasizing protection of equipment. Prerequisites: EEL 4215 or permission of the instructor. (F)

EEL 5437 Microwave Engineering (3). Microwave guides. Microwave tubes. Microwave solid state devices. Microwave integrated circuits, Microwave enclosures. Prerequisites: EEL 4410 or permission of the instructor. (S, every third year)

EEL 5482 Fields and Waves Engineering (3). Concepts and theorems in fields and waves, analytic techniques for guided waves, radiation and scattering, numerical techniques for analysis of electrical devices. Prerequisites: EEL 4410 or permission of the instructor. (S)

EEL 5500 Digital Communication Systems I (3). This course will consider the most important aspects of digital communication systems such as noise related subjects, random signals, linear systems, and baseband digital modulation and multiplexing. Prerequisites: EEL 3514 or permission of the instructor. (SS)

EEL 5501 Digital Communication Systems II (3). This course will consider more important aspects of digital communication systems such as matched filters, digital base and modulation, multiplexing, carrier digital modulation and error correction coding. Prerequisites: EEL 5500 or permission of the instructor. (F)

EEL 5543 Random Signal Principles (3). Noise, random processes, correlation, spectral analysis in the analysis and design of communication systems. Optimization techniques; minimum mean square error. Prerequisite: EEL 3514. (SS, alternating years)

EEL 5563 Introduction to Optical Fibers (3). Use of fiber optics as a communication medium. Principles of fiber optics; mode theory; transmitters, modulators, sensors, detectors and demodulators; fiber data links. Prerequisites: EEL 3514, EEE 4314 and EEL 4410 or permission of the instructor. (F, alternating years)

EEL 5563 Digital Control Systems (3). Analysis and design of digital control systems. Z-transforms, analysis and control of discrete-time systems, digital control of analog systems. Several digital controller design methods. Computer simulation and microprocessor implementation. Prerequisite: EEL 3657. (SS)

EEL 5718 Computer-Communication Network Engineering (3). System engineering synthesis, analysis, and evaluation of computer-communication networks. Network design, routing and flow control, telecommunication traffic engineering, transmission, switching, etc. Prerequisite: Permission of the instructor. (SS)

EEL 5719 Digital Filters (3). Analysis, design and implementation of digital filters. Hardware and software approach to design. Prerequisite: Permission of the instructor. (F)

EEL 5725 Digital Systems Engineering I (3). This course involves systematic studies of Fault Tolerant Digital Systems, VHDL and VERILOG based dynamic digital system designs, and system implementations with CPLDS, FPGAs, ASICs. Prerequisite: EEE 4304, EEL 4746 or Permission of the instructor. (F)

EEL 5741 Advanced Microprocessor Systems (3). Interfacing of various microprocessors together. Concepts of master-slave systems, virtual memory and I/O control techniques. Digital system evaluation and optimization. Prerequisites: EEL 4746 or permission of the instructor. (SS, alternating years)

EEL 5757 Real-Time Digital Signal Processing Implementations (3). Techniques for the implementation of Digital Signal Processing (DSP) algorithms in dedicated processors, for assessing real-time performance of audio, control, and communication systems. Prerequisites: EEL 4510 or permission of the instructor.

EEL 5813 Neural Networks-Algorithms and Applications (3). Various artificial neural networks and their training algorithms will be introduced. Their applications to electrical and computer engineering fields will be also covered. Prerequisite: Permission of the instructor. (SS)

EEL 5820 Digital Image Processing (3). Image Fundamentals, Image Transforms, Image Enhancement, Edge Detection, Image Segmentation, Texture Analysis, Image Restoration, and Image Compression. Prerequisite: EEL 3135 and knowledge of any programming language (FORTRAN, Pascal, C). (F)

EEL 5935 Advanced Special Topics (1-3). A course designed to give groups of students an opportunity to pursue special studies in an advanced topic of Electrical Engineering not otherwise offered. Prerequisite: Consent of instructor.

EEL 6020 Numerical Analysis of Electrical Devices (3). Numerical techniques for the analysis of static and

diffusion eddy current type field problems and associated phenomena in electrical devices. Emphasis on implementation and applications to practical problems. Prerequisites: EEL 4213, MAP 3302 or equivalent or permission of the instructor. (SS)

EEL 6141 Advanced Network Analysis (3). Modeling and analysis of networks by t-domain and s-domain techniques. Topics include topology, formulation of loop eqs and node pair eqs., state space networks, computer solutions. Prerequisites: EEL 3112 or permission of the instructor. (S, every third year)

EEL 6167 VLSI Design (3). Study of VLSI Design concepts in MOS/CMOS environment, CAD techniques, VLSI array processors and wavefront array processors, and implementation of array processors. Prerequisites: EEL 5741, EEE 4314. (SS, alternating years)

EEL 6219 Electric Power Quality (3). Modeling of networks under non-sinusoidal conditions, loads which may cause power quality problems, analysis of harmonics, flickers, impulses, standards, power quality improvement methods. Prerequisites: EEL 4213 or permission of the instructor.

EEL 6235 Motor Drives Control (3). Switched, resonant and bidirectional power supplies, DC motors: single, three phase and chopper drives. AC motors: voltage, current and frequency control. Closed loop control. Prerequisites: EEL 4213, EEE 3303, EEL 3657. (SS, alternating years)

EEL 6253 Computer Analysis of Power Systems (3). Power systems analysis and designs by computer solutions. Interactive solutions, power flow, optimum solutions. Dynamic solutions and stability. Prerequisites: EEL 4215 or permission of the instructor. (F, every third year)

EEL 6254 Power Systems Reliability (3). Expansion planning, load forecasting, reliability and availability application to generation planning, bulk power supply systems, generation system operation and production costing analysis. Prerequisites: EEL 4215 or permission of the instructor. (S)

EEL 6261 Power Systems Engineering (3). Steady-state analysis, fault studies, load flow, dynamic and transient performance, on-line control, practical applications. Prerequisites: EEL 4215 or permission of the instructor. (SS, every third year)

EEL 6267 Application of Intelligent Systems to Power System Operations (3). Power system security assessment using intelligence systems techniques such as pattern recognition, expert systems, and neural networks. Class projects include applying IS to load forecasting, alarm processing. Prerequisites: EEL 4214, EEL 6273. (SS, alternating years)

EEL 6273 Power System Stability and Control (3). Direct methods for system stability, computer analysis of large scale models, Lyapunov stability, longer term stability, security analysis, MW-frequency control, isolated and multiple area control. Prerequisites: EEL 4215 or permission of the instructor. (S)

EEL 6443 Electro-Optical Devices and Systems (3). Introduction to optical devices and systems such as solid state laser systems, their applications in industry. Also

holography, linear and non-linear optical modulation and demodulation concepts. Prerequisites: EEL 4410, EEE 4314. Corequisites: EEL 5563 or permission of the instructor. (S, every third year)

EEL 6444 Optical Fiber Communication Systems (3). Course focuses on specification, design and application of fiber optic communication systems considering the fiber optic wave guide, optical device sources, photo-detector, receiver and transmitter designs. Prerequisites: EEL 5501 or permission of the instructor. (S, every third year)

EEL 6463 Antenna Theory and Design (3). Radiation patterns of dipoles and loops, array analysis and synthesis, self-impedance and mutual impedance, frequency independent antennas and antenna miniaturization, and reflectors and lens antenna. Prerequisite: EEL 4410. (S, alternating years)

EEL 6505 Digital Signal Processing (3). Treatment of digital signal and system characteristics: Z transforms and FFT theory. Real time and correlation functions. Multidimensional signal processing and digital filtering. Prerequisite: Permission of the instructor. (F)

EEL 6509 Digital Communications by Satellite (3). This course will consider processing and non-processing transponders, earth terminals, propagation link characteristics, multiple access techniques, and spread spectrum techniques. Prerequisites: EEL 5501 or permission of the instructor. (S)

EEL 6536 Spectral Analysis (3). Methods for the analysis and estimation of a signal's spectral content. These include nonparametric, parametric and line spectral estimation, filter bank techniques and array processing. Prerequisites: EEL 5543 or 6505 or permission of the instructor.

EEL 6572 Pictorial Information Systems Design (3). Picture input device design, pictorial information systems hardware, picture processor design, picture storage system design, pictorial database system design, picture communication interface design, and engineering applications. Prerequisites: EEL 4709C or CDA 4400. (SS)

EEL 6575 Data Communications Engineering (3). Digital networks for data communications, CCITT, HDLC, SDLC. Real time switching techniques. Microprocessor based network topologies. Busing schemes such as VME, MULTIB, RS232. Prerequisites: EEL 4746 and EEE 4314 or permission of the instructor. (F)

EEL 6614 Modern Control Theory I (3). Graduate level treatment of modern control systems. Optimal control of feedback systems. Performance measures, Pontryagin's minimum principle, dynamic programming, numerical techniques. Prerequisites: EEL 5171 or permission of the instructor. (F, alternating years)

EEL 6615 Modern Control Theory II (3). Graduate level course in stochastic control. Stochastic processes, linear estimation, Kalman filtering techniques in state estimation. Design of feedback control in the presence of noise. Prerequisites: EEL 6614 or permission of the instructor. (S, alternating years)

EEL 6673 Identification Theory (3). System modeling, off-line methods, on-line methods, order and structure

determination, diagnostic tests and model validation. Prerequisite: EEL 5171. (F, alternating years)

EEL 6681 Fuzzy Systems Design (3). Applications of fuzzy theory to develop design methodologies for various engineering systems. Emphasis will be on systems for pattern recognition, model identification, and automatic control. Prerequisite: Permission of the instructor.

EEL 6726 Advanced VLSI Design (3). Advanced design and development of Very Large Scale Integrated Circuit (VLSI) Micro Chip Structures. Micro Chip routing and thermal optimizations will be emphasized for implementing VLSI units. Prerequisite: Permission of the instructor. (S, every third year)

EEL 6751 Wavelet Theory Applied to Signal Processing (3). Application of wavelet theory to transient and non-stationary signal processing; compression and noise reduction of signals, singularity and edge detection, and time-frequency analysis. Prerequisites: EEL 3135 or equivalent.

EEL 6758 Engineering Design of Microprocessor Based Operating Systems (3). Hardware microprocessor based systems, BIOS (basic input and output), Kernel partitions, memory, stack organization and physical design of operating systems. Prerequisites: EEL 4709C and EEL 4746 or permission of the instructor. (S, every third year)

EEL 6787 Network Security (3). Network Security Requirements, Number Theory, Steganography, Encryption Design Principles and Algorithms, Message Authentication and Digital Signature Principle and Designs, Network System Security Design. Prerequisite: Permission of Instructor.

EEL 6812 Advances in Neural Networks (3). Latest concepts in artificial neural networks research and newly developed applications. Implementation, convergence in learning algorithms, accuracy refinement, and optimal structure of neural networks. Engineering applications. Prerequisite: EEL 5810. (F, alternating years)

EEL 6816 Electronic Neural Systems (3). This course bridges electronics to the understanding of neurobiologically inspired models. Biological tasks and neural computations are studied in the context of networks and processing elements. Prerequisite: Permission of Instructor.

EEL 6821 Computer Vision (3). Image formation and image properties, Radiance and irradiance, introduction to Brain Topography, Color Vision, visual machinery of the brain, statistical pattern classification and decision functions, the eigensystem and its computational aspects, stereo vision, motion vision, size and orientation independence. Prerequisite: EEL 5820. (S)

EEL 6825 Pattern Recognition (3). Pattern recognition techniques via computer: decision functions, optimum decision criteria, training algorithms, unsupervised learning, feature extraction, data reduction, machine intelligence. Prerequisites: EEL 5543 or permission of Instructor.

EEL 6836 Computer Visualization of Brain Electrical Activity (3). Computer techniques for the visualization of brain electrical activity. Analysis of the origin of this activity as it relates to its measurement and visualization

through computerized systems. Prerequisites: EEL 4510 or permission of instructor.

EEL 6870 Intelligent Computer Design (3). The course involves self testing and correcting type of modular computer system development. Also concepts relating to Artificial Intelligence and Expert systems will be integrated into the computer system design. Prerequisite: EEL 4709C. (F, alternating years)

EEL 6905 Individual Work (1-4). Special problems or projects selected by the students and a faculty member. The student conducts the project with a minimum of supervision. Consent of Department Chairperson and Faculty Advisor.

EEL 6916 Graduate Project (1-3). Independent research work culminating in a professional practice-oriented report for the requirements of the non-thesis option of the M.S. degree project. Prerequisites: Fifteen graduate credits and approved project plan.

EEL 6931 Special Topics in Electrical and Computer Engineering (1-3). Course covers advanced topics not in existing graduate courses in electrical and computer engineering. Prerequisite: Permission of the instructor.

EEL 6932 Graduate Seminar (1). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities, readings, and active discussions among participants. Prerequisite: Consent of graduate advisor.

EEL 6971 Research Master's Thesis (1-6). The student, following the option of the Master's Degree with thesis, should work for his/her thesis through this course. Prerequisite: Graduate standing.

EEL 6977 Extended Thesis Research (0). For Graduate research students who have completed their sequence of thesis credits, but must register for a course to remain on graduate student status.

EEL 7910 Advanced Research (1-6). Advanced research credits under the supervision of the dissertation advisor. Prerequisite: Completion of the written comprehensive examination.

EEL 7980 Ph.D. Dissertation (1-12). Doctoral research leading to Ph.D. Electrical Engineering Dissertation. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

TCN 5010 Telecommunications Technology and Applications (3). An in-depth introduction to voice and data networks, signaling and modulation, multiplexing, frequency band and propagation characteristics, special analysis of signals, and traffic analysis. Prerequisite: Permission of the instructor.

TCN 5030 Computer Communications and Networking Technologies (3). Teaches the dynamics related to computer communications, how computers are grouped together to form networks, various networking implementation strategies, and current technologies. Prerequisite: Permission of the instructor.

TCN 5060 Telecommunications Software and Methodologies (3). A high-level look into network architectures and distributed applications, client-server

models, network software platforms and advanced techniques for programs specifications through implementation. Prerequisites: TCN 5030 or permission of the instructor.

TCN 5080 Secure Telecommunications Transactions (3). Telecom and information security issues such as: digital signatures, cryptography as applied to telecom transactions, network policing, nested authentication, and improving system trust. Prerequisites: TCN 5030 or permission of the instructor.

TCN 5150 Multimedia Computer Communications (3). Covers multimedia computer communications technologies including, multimedia over networks, videoconferencing, telephone, compression algorithms and techniques for transmitting data efficiently. Prerequisites: TCN 6210 or permission of the instructor.

TCN 5155 Wireless Communications with Multimedia Applications (3). Overview of wireless communications systems; interference, blocking, spectral efficiency; performance of digital modulation in presence of fading; diversity techniques; and multimedia applications. Prerequisite: EEL 3514

TCN 5440 Software Development for Telecommunication Networks (3). Focuses on the aspects, tools, and techniques of developing software applications for telecommunications networks. Prerequisites: TCN 5030 or equivalent.

TCN 5445 Telecommunications Networking Programming (3). Advanced telecommunications network programming skills including Router and Bridge Software, socket programming and protocol handler. Prerequisite: Permission from instructor.

TCN 5455 Information Theory (3). Entropy and measure of information. Proof and interpretation of Shannon's fundamental theorem for various channels, including noiseless, discrete, time-discrete and time-continuous channels. Prerequisite: Permission of the instructor.

TCN 5640 Telecommunications Enterprise Planning and Strategy (3). Methodologies for re-engineering, project management, strategic planning, change management, RFPs, and life-cycle management within the telecommunications and IT arena. Prerequisite: Permission of the instructor.

TCN 6210 Telecommunications Network Analysis and Design (3). A systematic, analytic and descriptive approach to the evaluation of telecommunications networks, networking principles, and control and quality of service. Prerequisite: Permission of the instructor.

TCN 6230 Optical Networks (3). Enabling technologies, multiplexing techniques, WDM, broadcast networks, wavelength-routed networks, network architectures, protocols, network algorithms, and device-network interfaces. Prerequisites: TCN 5030 or equivalent.

TCN 6260 Internetworking (3). The course will discuss advanced topics, current trends and control of internetworking. An analytical and descriptive approach will be used to cover the subject of internetworking.

TCN 6270 Mobile and Wireless Networks (3). Techniques in the design and operation of wireless

networks; LANs, MANs, and WANs; analytical models; application of traffic and mobility models; mobility control, and wireless ATM. Prerequisites: TCN 5030 or equivalent.

TCN 6275 Mobile Computing (3). Enabling technologies and impediments of mobile computing. It includes mobile architectural design, mobile-aware and transparent adaptation, mobile data access and file systems, and ad-hoc networks. Prerequisite: Permission of the instructor.

TCN 6420 Modeling and Performance Evaluation of Telecommunications Networks (3). Covers methods and research issues in the models and performance evaluation of high-speed and cellular networks. Focuses on the tools from Markov queues, queuing networks theory and applications. Prerequisites: TCN 5030 or equivalent.

TCN 6430 Networks Management and Control Standards (3). Protocols for management of telecom networks, including Simple Network Management Protocol and Common Management Information Protocol. Extension of protocols to optimize network performance. Prerequisites: TCN 5030 or equivalent.

TCN 6450 Wireless Information Systems (3). Enabling technologies and impediments of wireless information systems. Focuses on software architectures, and information and location management in the wireless environment. Prerequisite: Permission of the instructor.

TCN 6820 Industrial Development of Telecommunications (3). This course, from a management perspective, addresses the evolution of the telecom industry, the impact it has on reshaping our world, and the importance of management decisions in telecom.

TCN 6880 Telecommunications Public Policy Development and Standards (3). A concept-oriented examination of the domestic and international telecommunications policy processes and standards setting environment. Prerequisite: Permission of the instructor.

TCN 6935 Graduate Seminar (0). Investigation and report by graduate students on topics of current interest in telecommunication and networking. Prerequisites: Ph.D. classification and approval of instructor.

TPA 5213 Performing Arts Technology (2). Applications of structural, mechanical, electrical and electronic technologies to prepare performing arts students for management and production roles. Includes basic circuits and NEC codes, control systems. Prerequisite: Permission of graduate advisor.

Industrial and Systems Engineering

Shih-Ming Lee, *Chairperson and Associate Professor*
Alan L. Carsrud, *Professor and Director, Center for Global Entrepreneurship*

Martha A. Centeno, *Associate Professor*

Chin-Sheng Chen, *Professor*

Joe Chow, *Associate Professor*

Purushothaman Damodaran, *Assistant Professor*

Ronald Giachetti, *Associate Professor*

Khokiat Kengskool, *Associate Professor*

Kia Makki, *Lucent Technology Professor*

Jin Kyu Park, *Assistant Professor*

Marcus Perry, *Assistant Professor*

Marc L. Resnick, *Associate Professor*

Mario Sanchez, *Lecturer and Advisor*

Industrial and Systems Engineering is involved with design and operations of efficient and effective systems. An industrial and systems engineer takes an integrated approach to the design and management of an enterprise system so that it operates at optimal efficiency, quality and productivity. Industrial and Systems Engineers may be found in different industrial sectors ranging from manufacturing to service including production, transportation, government, financial service, and health care.

The ISE Department is actively involved with the Global Entrepreneurship Center at FIU in providing campus-wide awareness of entrepreneurship as an approach to life that enhances and transcends traditional academic experiences. Students in ISE programs are strongly encouraged to take entrepreneurial courses as their electives.

Master of Science in Industrial and Systems Engineering

Chin-Sheng Chen, *Program Director*

The Master of Science program in Industrial and Systems Engineering emphasizes research, and course work. The graduate degree is intended to prepare students for the professional practice of Industrial Engineering as well as for pursuing a doctoral degree.

Admission Requirements

The applicant must meet all University Graduate School admission requirements including:

1. Have a "B" average in upper level undergraduate work.
2. Have a score of 1,000 on the Graduate Record Examination (verbal and quantitative combined).
3. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required..

In addition, the applicant must have a BS in engineering from an accredited institution.

Applicants not meeting the above requirements may be considered under the following circumstances:

1. Applicants with degrees from disciplines other than engineering may be required to take remedial courses.
2. Conditional admission may be requested if the minimum GPA or GRE are not met.

Available Areas of Concentration

Human Factors/Ergonomics
 Integrated Manufacturing
 Operations Research/Systems Engineering

Course Requirements

Each MSIE student is required to take a minimum of 30 graduate credit hours to complete the degree program. All students must take the following five core courses.

ESI 6316	Applications of OR in Manufacturing
ESI 6547	Stochastic Models of Industrial System
STA 5206	Design of Experiments I (<i>or equivalent</i>)
EIN 5332	Quality Engineering
EIN 6357	Advanced Engineering Economy

All students must take the Graduate Seminar in their first semester. Each student is required to select a concentration area as part of the seminar course. Students in each concentration area must take three technical electives in addition to the core courses and complete 6 credits of Master's Thesis. Elective graduate courses are selected by the student with the approval of the thesis advisory committee to support thesis work. The MSIE program accepts no credit hours for internship and a maximum of 3 credit hours of independent study.

Information Systems Engineering Track

Ronald Giachetti, *Program Director*

The Information Systems Engineering track is tailored for systems engineers in both manufacturing and service industries. It is an interdisciplinary and terminal degree program with emphasis on information systems analysis, design and implementation for various organizations by applying and integrating information technologies. Students will be exposed to a full range of systems engineering functions and will be equipped with the knowledge and skills required to design, operate, and improve the information systems of today and tomorrow.

Admission Requirements

Admission to the Information Systems Track is highly competitive. The student must meet all University Graduate School admission requirements. In addition, he or she must have a Bachelor of Science degree in engineering or a closely related field from an accredited institution.

Applicants who do not meet the above criteria may be evaluated for conditional admission.

Program Requirements

Prior to the required graduate curriculum, students in the Information Systems Engineering track must have adequate knowledge in the following subjects:

- Programming
- HTML
- Application Tools (e.g. spreadsheets, database management systems)

Students without proper background will be required to take courses as needed.

Program of Study

The Information Systems Engineering track requires 36 credit hours. Students in the Information Systems Engineering track must take five core courses for all MSISE majors. In addition, students must take the following four track required courses plus 9 credit hours of technical electives.

EIN 5256	Usability Engineering
ESI 5602	Engineering Data Representation and Modeling
ESI 5603	Advanced Software Tools for ISE
EIN 6117	Advanced Industrial Information Systems

Elective graduate courses are selected by the student with the approval of the Program Director. The Information Systems Engineering track accepts no credit hours for internship, maximum of 3 credit hours for the Master's project, and a maximum of 3 credit hours of independent study.

Manufacturing Engineering Track

Chin-Sheng Chen, *Program Director*

The track is tailored for engineers in the manufacturing industry or those entering the industry. It is an interdisciplinary and terminal degree program with emphasis on practices and hands-on experience. Students will be exposed to a full range of manufacturing engineering functions and will be equipped with the knowledge and skills required to design, operate, and improve manufacturing systems of today and tomorrow.

Admission requirements

The student must meet all University Graduate School admission requirements. In addition, he or she must have a Bachelor of Science degree in engineering or a closely related field from an accredited institution.

Applicants who do not meet the above criteria may be evaluated for conditional admission.

Program requirements

The Manufacturing Engineering track requires 36 credit hours. Students in this track must take the five core courses for all MSISE majors. In addition, students must take the following four track required courses plus 9 credit hours of technical electives.

EIN 6398	Advanced Manufacturing Process
EIN 6392	Product Design and Development
EIN 6336	Advanced Production Planning and Control
EIN 6437	Manufacturing Systems Design

Elective graduate courses are selected by the student with the approval of the Program Director. The Manufacturing Engineering track accepts no credit hours for internship, maximum of 3 credit hours for Master's project, and a maximum of 3 credit hours of independent study.

Combined BS/MS Program

Students who have completed a minimum of 90 hours towards their BS degree and have earned at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three ISE faculty members, apply to the department to enroll in the combined BS/MS program. Students enrolled in the program may count up to 9 credit hours of ISE graduate courses as credits for both the BS

ISE electives and the MS degree. The BS/MS (3 + 2) Program has been designed to be a continuous program. Students in 3 + 2 programs will apply for graduation with the BS and MS at the same time. Students will receive a BS degree and a MS degree on the same date, after requirements for both are completed. The student's advisor will insure that appropriate forms are completed, and that students do not apply for BS degree graduation until both BS and MS requirements are finished. Upon the completion of BS degree requirements, students can elect to permanently leave the combined program at any time and earn only the BS degree. Once the BS is granted, students will have the same access requirements to regular graduate programs as any other student. However, the combined MS degree would not be available to those who elect to leave the combined program.

Admission into the combined program does not automatically qualify the students for admission into the MS degree program. To enroll in the MS degree program, the students must apply to the graduate school and meet all graduate admission requirements.

The ISE Department encourages students to get practical industry experience via internships or co-ops at their junior and senior level. Credits for internships and co-ops do not count towards the degree.

Engineering Management

Shih-Ming Lee, *Program Director*

Master of Science in Engineering Management

The Master of Science program in Engineering Management (MSEM) develops future leaders of business and industry for a technological environment. The program blends a carefully chosen mix of engineering courses offered by the College of Engineering and Computing and business courses offered by the College of Business Administration.

The MSEM program is designed to offer one of the most appropriate management degrees for those individuals who would like to advance to managerial positions and wish to acquire the necessary knowledge and skills for success. The MSEM curriculum integrates theoretical concepts, case studies and computer software in a simulated business environment where students are challenged to make decisions that have organizational wide impact. Students in the program will have the opportunity to use and learn contemporary software and specialize in a chosen field of study.

Admission Policies

The applicant to the MSEM program must have a bachelor's degree or equivalent in engineering of a closely related field from a regionally accredited institution with a minimum of "B" average in upper level work, or a graduate degree from an accredited institution. In addition, International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Degree Requirements

The basic program will consist of 36 credit hours as follows: 9 credit hours of engineering management, 9 credit hours of business, 18 credit hours of advised electives.

Engineering Management Core Courses

Students in the Engineering Management program are required to take three courses (9 credit hours) to build engineering/technology foundation that includes topics in a quality management, project management, information systems, logistics, entrepreneurship, optimization, manufacturing, and engineering economy. The suggested list of courses is given below:

EIN 5322	Engineering Management	3
EIN 5226	Total Quality Management For Engineers	3
EIN 6117	Advanced Industrial Information Systems	3
ESI 6455	Advanced Engineering Project Management	3
EGN 6437	Manufacturing Systems Design	3
EIN 6357	Advanced Engineering Economy	3
ESI 6316	Applications of OR in Manufacturing	3
EIN 5346	Logistics Engineering	3
EIN 5xxx	Engineering Entrepreneurship	3
EIN 6133	Enterprise Engineering	3
EIN 6xxx	Telecommunications Management	3

Business Core Courses

Students in the program are required to take three courses (9 credit hours) to gain fundamental knowledge about management functions that includes topics in accounting, finance, organizational behavior, marketing, and production. The suggested list of courses is given below:

ACG 6026	Accounting for Managers	3
FIN 6428	Corporate Finance	3
MAN 6209	Organization Design and Behavior	3
MAR 6805	Marketing Management	3
ISM 6205	Database Management	3
MAN 6830	Organization Information Systems	3
QMB 6357C	Business Analysis for Decision Making	3
MAN 6501	Operations Management	3
EIN 5359	Industrial Financial Decisions	3

Engineering Electives

Students in the program are required to take six courses (18 credit hours) from engineering or closely related subjects of interest, for example, 'telecommunications', 'biomedical', 'manufacturing', etc. These engineering elective courses will broaden and deepen the student's understanding of technology development. The elective courses require approval from the student's advisor.

Master's Project Option

Students in the program could choose to conduct a Master's project (3 credit hours) to complete the degree program. The Master's project will replace one course in Engineering Electives.

Grades and Credits

Students are required to maintain a GPA of 3.0. Courses with a grade below 'C' will not be counted toward the Master of Science degree in Engineering Management.

Transfer Credit

Students may receive permission to transfer up to a maximum of six semester credits provided that: (1) the courses were taken at the graduate level at an accredited college or university; (2) with a grade of 'B' or better; (3) the courses were judged relevant by the student's advisory committee; (4) the credits were not used toward another degree; and (5) the credits will be no older than six years at the time of graduation. No more than 12 semester hours taken at FIU as a non-degree seeking student may be counted toward the Engineering Management program.

Time Limit

All works applicable to the Master of Science degree in Engineering Management, including transfer credits, must be completed within six years of first enrollment in a master's program.

NOTE: Please see the section of the College of Business Administration for description of the Business core courses.

Technology Management

Shih-Ming Lee, Program Director

Master of Science in Technology Management

The Master of Science in Technology Management (MSTM) is an interdisciplinary program emphasizing partnership between industry and academia. It provides an integrated curriculum in technology and business administration. High-tech companies face significant challenges as they try to maintain an advantage in a global economy that offers great business opportunities. Achieving and managing the continuous growth of their core technology competencies and product lines are among the challenges that these companies face. To meet these challenges, managers must possess two sets of competencies: technical knowledge and management skills.

The MSTM program can greatly help the engineers and scientists who are moving into management positions and recognize that advanced technical knowledge must be coupled with strong communication and administrative skills. It also provides useful tools for managers and business leaders who recognize that an understanding of issues in specific technology fields is critical in maintaining a competitive advantage in a global market.

Admission Requirements

The applicant to the MSTM program must have a bachelor's degree or equivalent in engineering technology, sciences, or a closely related field from a regionally accredited institution with a minimum of "B" average in upper level work, or a graduate degree from an accredited institution. In addition, International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Degree Requirements

Students in MSTM program are required to take 36 credits of graduate level courses. Included in the program are 9 credits of Technology Management core courses; 9 credits

of Management Function courses; 15 credits in the technology concentration; and 3 credits in a technology elective course. All technology concentration courses should be selected from one area, such as Information Technology, Telecommunications, and Biomedical Technology.

Technology Management Core Courses: (9 credits, select 3 courses)

EIN 6160	Management of Innovation and Technology
EIN 6105	Technology Policies and Strategies
EIN 6324	Technology Entrepreneurship
EIN 5106	Regulatory Aspects of Engineering
EIN 6133	Enterprise Engineering
EIN 6357	Advanced Engineering Economy
ESI 6455	Advanced Engineering Project Management

Management Function Courses: (9 credits, select 3 courses)

ACG 6026	Accounting for Managers
FIN 6428	Corporate Finance
MAN 6209	Organization Design and Behavior
MAN 6501	Operations Management
MAN 6830	Organization Information Systems
MAR 6805	Marketing Management in Global Environment

Master's Project Option

Students in the proposed program could choose to conduct a Master's project (3 credit hours) to complete the degree program. The Master's project will replace the technology elective course.

Technology Concentration: (15 credits, select 5 courses within the track)

Information Technology

COP 6545	Advanced Topics in Database Management
ESI 5602	Engineering Data Representation and Modeling
EIN 5603	Advanced Software Tools for ISE
EIN 6117	Advanced Industrial Information Systems
ESI 6546	Network Flow Analysis
ESI 6601	Data Warehousing and Mining
ISM 6155	Information Systems Development
ISM 6225	Global Applications of Information Technology
MAN 6830	Organization Information Systems
TCN 6820	Industrial Development of Telecommunications

Telecommunications

TCN 5010	Telecommunications Technology and Applications
TCN 5030	Computer Communications and Networking Technologies
TCN 5060	Telecommunications Software and Methodologies
TCN 5xxx	Multimedia Computer Communications
TCN 5640	Telecommunications Enterprise Planning and Strategy
TCN 6210	Telecommunications Network Analysis and Design
TCN 6430	Network Management and Control Standards

TCN 6450	Wireless Information Systems
TCN 6880	Telecommunications Public Policy Development and Standards
EEL 5500	Digital Communications I
EEL 5501	Digital Communications II

Biomedical Technology

BME 5xxx	Engineering Analysis of Biological Systems
EEL 5071	Bioelectrical Models
EEL 5085	Bioradiation Engineering
EEL 6075	Biosignal Processing I
EEL 6076	Biosignal Processing II
EGM 5585	Biotransport Processes
EGM 6586	Fluid Mechanics Applications in Physiological Systems
EMA 5584	Biomaterials Science

As technology advances, the technology tracks and courses in each track will be inevitably expanded to reflect the latest developments. The final selection of the Technology Track courses and the Technology Elective course requires approval from the student's advisor.

Doctor of Philosophy in Industrial and Systems Engineering

Chin-Sheng Chen, Program Director

The doctoral program provides integrated research and education in the area of enterprise systems engineering. The curriculum combines elements of systems engineering, manufacturing engineering, information technology, industrial engineering, and engineering management.

The globalization of the markets has given rise to new entrepreneurial challenges and research inquiries. Engineering systems can no longer be designed and analyzed as isolated islands within a corporation. They must be treated holistically and as a vital part of the entire enterprise. These systems require an entrepreneurial approach to design, analysis, and development. The doctoral degree provides its students with the necessary tools and methodologies to achieve such an approach.

Applicants are considered for financial aid based on their GPA, GRE scores, letters, personal statement, and professional experience.

Admission Requirements

A prospective student must meet all admission requirements stipulated in the University's Graduate Policies and Procedures. In addition, the requirements for admission to the doctoral program in Industrial and Systems Engineering are stated as follows:

- A student seeking admission to the doctoral program must have a Bachelor's degree with a GPA of at least 3.5/4.0 in the upper division coursework; or a Master's degree with a GPA of at least 3.3/4.0 in Industrial Engineering, Systems Engineering, or closely related field from an accredited institution.
- GRE of at least 1120 points on verbal plus quantitative.
- Three letters of recommendation.
- International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language

Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. The Graduate Program Committee will examine credentials of all applicants. Students, who do not meet the above requirements, may be evaluated for conditional admission.

Degree Requirements

I. Course Requirements

Applicants having a Master's Degree in Industrial Engineering from an accredited program are given a maximum of 30 transferred semester hours of coursework.

Applicants having a Bachelor's Degree in Industrial Engineering are required to complete at least 78 credit hours in the Ph.D. program, which should include:

- EIN 6932 Graduate Seminar
- At most 30 credits at the 5000 level.
- At least 30 credits at the 6000 level or higher, (not to include dissertation).
- Maximum 15 credits outside the areas of Industrial and Systems Engineering
- Minimum 18 credits of dissertation.

The Ph.D. program of study includes no credits for internship and supervised research. It accepts maximum of 3 credit hours for independent study. Students without a degree in Industrial Engineering may be required to take remedial courses.

II. Qualifying Examination and Candidacy Requirements

- Students must demonstrate graduate knowledge acquisition in three incremental stages in order to be awarded a Ph.D. in Industrial and Systems Engineering:
- Stage I Qualifying Exam (QE)
- Stage II Proposal and Candidacy Defense
- Stage III Final Defense

The Qualifying Exam is generally taken during the second year and must be taken no later than the end of the second year. In the semester prior to his/her taking the Qualifying Exam, student must declare intention to take the exam and must declare a major area. In the event a student failed the Qualifying Exam, the student can retake it one more time in the subsequent semester. The Qualifying Exam covers the following subject area:

- Production Planning and Control
- Deterministic OR
- Stochastic OR
- Information Systems
- Engineering Economy
- Quality Engineering

The formal admission to Ph.D. candidacy occurs when the student successfully completes all required courses, successfully passes the Qualifying Exam, prepares a formal dissertation proposal, and successfully defends the content of the proposal before his/her dissertation committee. The Candidacy Defense is a comprehensive exam in addition to the proposal defense. Immediately following the Candidacy Defense, the student's dissertation committee will vote to admit the student to candidacy, to have the student resubmit the proposal within six months, or to dismiss the student from the Ph.D. program. A student can only resubmit his/her proposal once.

The student's dissertation committee must consist of a

minimum of four members. The majority of the committee must be from ISE department with at least one member from outside the department. The committee must meet University Graduate School's requirements.

III. Program of Study

Each student in the doctoral program must submit a program of study and the dissertation topic to the Graduate Program Committee before the beginning of the second year. The Graduate Program Committee and Graduate Program Director must approve the program of study and the dissertation topic. A program of study must include the following 10 core courses or equivalent for all students in the proposed program. These courses provide fundamental knowledge in enterprise systems engineering.

EIN 6357	Advanced Engineering Economy
EIN 6133	Enterprise Engineering
EIN 6336	Adv. Production Planning and Control
ESI 6316	Applications of OR in Manufacturing
ESI 6547	Stochastic Models of Ind. Systems
ESI 6460	Methods for Algorithms Development
ESI 5602	Eng. Data Representation & Modeling
ESI 5603	Advanced Software Tools for ISE
EIN 6117	Advanced Industrial Information Systems
EIN 5332	Quality Engineering

The remaining credits of coursework are elective courses to provide the student with a focus research area. The student's dissertation committee must approve these electives.

IV. Other Requirements

Each candidate must have his/her research results accepted or published by a refereed professional journal, or the dissertation will be submitted for and subject to external review.

Course Descriptions

Definition of Prefixes

EGN-Engineering, General EIN-Engineering, Industrial; ESI-Engineering Systems Industrial.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

EGN 5435 Product Modeling (3). Life cycle product data, geometry and form features, product information models and modeling techniques, product modeling systems, and product data standards. Prerequisites: EGN 3123 or equivalent.

EGN 6436 Manufacturing Process Design (3). Resources modeling, process plan modeling, and planning methodologies for process selection, operations selection, machining parameters selection, setup planning, and inspection planning. Prerequisite: EGN 5842.

EGN 6437 Manufacturing Systems Design (3). System design for production and process planning, resource management, material handling, process control, and quality control. Prerequisite: Permission of the instructor.

EGN 6438 Manufacturing Engineering (3). Manufacturing functions, product and process design, material processing and control, systems design and operations, resource and technology management, and analytical tools for manufacturing. Prerequisites: EIN 3390 or equivalent. (F)

EGN 6971 Master's Project (1-3). Individual work culminating in a professional practice-oriented report suitable for the requirements of the Master of Science in Manufacturing Engineering program.

EIN 5106 Regulatory Aspects of Engineering (3). A survey of the legal and regulatory requirements encountered by engineers. Included will be OSH Act, NIOSH, ADA, EEOC, Worker's Compensation and Product Liability.

EIN 5226 Total Quality Management for Engineers (3). Fundamentals of TQM and its historical development. Integration of QC and management tools, QFD, benchmarking, experimental design for scientific management. (F,S)

EIN 5244 Cognitive Engineering (3). Advanced topics in human factors and cognitive engineering. Theoretical aspects of applied situation awareness and decision making, and applications in a variety of engineering domains. Prerequisite: EIN 4243.

EIN 5249 Occupational Biomechanics (3). Study of the theoretical fundamentals for the mechanics of the body. The link system of the body and kinematic aspects of body movement including applications of biomechanics to work systems. Prerequisites: EIN 4314 Work Design and Industrial Ergonomics or equivalent. (S)

EIN 5256 Usability Engineering (3). The usability aspects of software systems design and testing. The theory of interface design for usability and the methods and techniques for designing and testing technology interfaces. Prerequisite: Permission of Instructor.

EIN 5322 Engineering Management (3). Organization of engineering systems including production and service organizations. Inputs of human skills, capital, technology, and managerial activities to produce useful products and services. (F,S)

EIN 5332 Quality Engineering (3). This course examines quality control from an engineering standpoint. It covers ways to meet the challenge of designing high-quality products and processes at low cost. Prerequisites: EIN 3331 or equivalent. (S)

EIN 5346 Logistics Engineering (3). Concepts and tools for effective design and management of supply chain systems. Includes logistics strategies, inventory management, customer service, supply chain integration and logistics network design. Prerequisite: Permission of the instructor.

EIN 5359 Industrial Financial Decisions (3). The use of financial techniques and data in planning, controlling and coordinating industrial activities. This course will familiarize the student with accounting concepts and analytical methods. Prerequisite: EIN 3354. (SS)

EIN 5367 Design of Production Systems (3). The design of an industrial enterprise including feasibility, plant layout, equipment specifications, auxiliary services, economics and scheduling. Prerequisite: EIN 3365. (SS)

EIN 5605 Robotic Assembly Cell (3). Concepts of robot manipulation and sensing, part design for robotic assembly, planning manipulator trajectories, machine

vision, robot programming language, cell control, and material transfer. Prerequisite: EIN 3600. (S)

EIN 6105 Technology Policies and Strategies (3). Strategies and policies for managing all aspects of technology. Includes value chain integration, intellectual property, and internal processes and systems.

EIN 6117 Advanced Industrial Information Systems (3). Review of the fundamental and theoretical foundation of industrial information systems. Application of the system design process and information system concepts to develop integrated engineering systems. (F,S)

EIN 6131 e-Systems Design (3). The study and application of engineering analysis and design methods for Internet-based systems. The integration of Internet technologies and applications into engineering information systems. Prerequisites: ESI 5602, EIN 6117.

EIN 6132 Collaborative Engineering (3). Product data management, visualization, collaboration, collaborative product commerce, document management, component supplier management, configuration management, enterprise application integration. Prerequisite: Permission of the instructor.

EIN 6133 Enterprise Engineering (3). Enterprise processes and functions, enterprise engineering methodology and techniques, enterprise scalability, systems and vertical integration, systems design and implementation. Prerequisite: Permission of Instructor.

EIN 6160 Management of Innovation and Technology (3). The course provides an integrated view of management of technology. The combination of theory and practice addresses the challenges of globalization, time compression, and technology integration. Prerequisite: Permission of instructor.

EIN 6246 Advanced Human-Machine Interaction Design (3). The application of human factors analysis and design methods to complex system interaction. Interface design for technological systems in workplace and consumer domains. Prerequisites: EIN 4243 or equivalent.

EIN 6248 Advance Ergonomics (3). Analysis of human factors in the design of engineering systems, with emphasis on the interphase of man-machine-media and human limitations in relation to equipment design and work environments. Prerequisites: EIN 4314, EIN 4243, and PCB 3702 or equivalent. (F)

EIN 6258 Ergonomic Design of Aerospace Systems (3). Application of ergonomic criteria in design of civil and military aircraft cockpits and control systems. Ergonomic consideration in design of outer space vehicles, stations, and systems. Prerequisite: EIN 6248.

EIN 6259 Usability Engineering in E-commerce (3). This advanced course applies usability engineering theories and methods to models of e-commerce. Usability models are presented and evaluated using case studies. Prerequisite: EIN 5256.

EIN 6319 Advanced Work Design (3). Study of the various human physiologic systems and their responses as it relates to occupational work including endurance,

fatigue, recovery, and energy cost of work. Prerequisite: EIN 6248. (S)

EIN 6324 Technology Entrepreneurship (3). Entrepreneurial process, evaluation of technology, startup operations and strategy, business plans and venture capital, intellectual property and rights, growth and technology management.

EIN 6325 Business Plan Development (3). This course deals with the critical decisions and action steps that entrepreneurs must make in both planning and executing a new venture. It also covers how to develop an effective written plan. Prerequisite: Permission of advisor.

EIN 6327 Entrepreneurship and New Venture Initiation (3). It covers critical factors of initiating new ventures: entrepreneurial networks, venture creation, strategies, evaluation, financing, legal considerations, market strategies, and feasibility analysis.

EIN 6329 Advanced Engineering Business Plan Development (3). This course takes students through the process of writing a plan for a new business venture through to implementation. Heavy emphasis placed on research and case analysis. Prerequisites: EIN 6324 or MAN 6805.

EIN 6336C Advanced Production Planning and Control (3). Analytical and algorithmic planning methodologies, planning and scheduling technologies, sequencing rules, control strategies, and line balancing methods. Prerequisite: EIN 4334.

EIN 6345 Inventory Control Systems (3). Design of non-traditional inventory control systems. Development of several inventory system models. Exploration of methods of collecting appropriate demand and cost data for effective systems analysis. Prerequisite: ESI 3314.

EIN 6357 Advanced Engineering Economy (3). Review of engineering economy and the evaluation of advanced manufacturing systems. Evaluation of alternative capital investments considering income taxes, depreciation, inflation, risk and uncertainty. Prerequisite: EIN 3354. (SS)

EIN 6392 Product Design for Manufacturability and Automation (3). Overview and integration of the design-material-manufacture process. Design considerations for manufacturability, assembly, and economical production. Concurrent engineering systems. Prerequisite: EIN 4395. (S)

EIN 6393 Design and Implementation of Discrete Manufacturing Systems (3). Methodology and techniques for design, planning and implementation of discrete production systems including process/machine selections, material handling and inspection technologies, cell control, etc. Prerequisites: Graduate or seniors with EIN 3365, EIN 3390, and ESI 3523 or equivalent.

EIN 6397 Advanced Topics in Manufacturing Automation (3). Overview of manufacturing systems; evolution of controls and AI, material handling, automation clamps, jigs, and fixtures, cutting sensors, machine vision and autonomous manufacturing. Prerequisites: EIN 6392 and EIN 6398.

EIN 6398 Advanced Manufacturing Process Engineering (3). Non-traditional manufacturing

processes. Tool selection, jig and fixture design, material handling, tolerance and dimensioning. Product assembly engineering economics, and manufacturing process planning. Prerequisite: EIN 3390. (F)

EIN 6603 Applied AI/Expert Systems in Industrial Engineering (3). Application of artificial intelligence and expert systems as engineering tools. Exploring the use of PCs and symbolic machine with various AI/Expert Systems software. Several projects are required. Prerequisite: CAP 5680.

EIN 6606 Robotic Systems (3). Basic robotic system principles, functional requirements of robotic systems, simulation of system preliminary design, and physical experimentation of robotic systems.

EIN 6908 Independent Study (1-3). Individual supervised study by a faculty. A study plan and a final report are work required. Prerequisite: Departmental approval. (F,S,SS)

EIN 6910 Supervised Research (1-9). Advanced research credits under the supervision of the dissertation advisor.

EIN 6932 Graduate Seminar (0). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities, readings and discussions among participants. (F,S)

EIN 6936 Design of Industrial Engineering Systems (3). Overview of systems theories. Systems design process including: Problem definition, analysis, generation of alternatives, systems evaluation, selection of preferred system, and implementation. Prerequisites: EIN 6345, ESI 6316, and ESI 6524.

EIN 6940 Industrial and Systems Engineering Internship (1). To provide graduate students with work experience under approved industrial supervision. Prerequisite: Permission of department chairperson.

EIN 6950 Engineering Management Masters Project (1-3). Individual work culminating in a professional practice-oriented report suitable for the requirements of the Master of Science in Engineering Management program. Prerequisite: Permission for the advisor.

EIN 6971 Master's Thesis (1-3). The students following the thesis option should work on his/her thesis through this course. (F,S,SS)

EIN 7980 Ph.D. Dissertation (1-12). Doctoral research leading to Ph.D. dissertation in Industrial and Systems Engineering. Prerequisites: Doctoral Candidacy and permission of Graduate Director.

ESI 5456 Productivity Management in the Global Organization (3). Analysis of productivity management strategies. Major issues in performance and productivity management, domestic and global outsourcing, international labor standards and trade policies. Prerequisites: EIN 4214 or equivalent.

ESI 5522 Simulation Models of Engineering Systems (3). Simulation Methodology; design and implementation of models of engineering systems using computer software; case studies. Prerequisite: STA 3033 or EIN 3235 or equivalent and COP 3175 or equivalent.

ESI 5602 Engineering Data Representation and Modeling (3). The course will cover the life cycle of designing, developing, and implementing engineering database systems by applying the IDEFLx methodology. Prerequisite: Permission of Instructor.

ESI 5603 Advanced Software Tools for ISE (3). Algorithms and principles to integrate heterogeneous tools. Principles of XML, ASP, and other tools. Development of programming projects.

ESI 6316 Applications of OR in Manufacturing (3). Overview of OR techniques. Manufacturing system and product selection. Shop loading, resource allocation, production scheduling, job sequencing, and plant layout problems. System performance evaluation. Prerequisite: ESI 3314. (F)

ESI 6319 Operations Research and Information Technology (3). Principles and paradigms for the design and implementation of OR models, which may be integrated into an organization's existing information system and technologies. Prerequisite: ESI 6316.

ESI 6440 Integer Programming (3). Formulating and solving decision-making problems with discrete decision variables. Methods to solve large-scale integer/mixed-integer models. Prerequisite: ESI 6316.

ESI 6455 Advanced Engineering Project Management (3). This course covers entire phases of project management including selection, planning, budgeting, scheduling, monitoring, and control. It focuses on the management of engineering projects through case studies and independent research assignment. Prerequisite: Permission of the instructor. (S,SS)

ESI 6460 Methods for Algorithm Development for Industrial Engineering Applications (3). Methods for algorithm development for Industrial Engineering applications, with emphasis on powerful optimization techniques and analysis tools. Prerequisites: ESI 3314 or permission of instructor.

ESI 6470 Stochastic Optimization (3). Formulating and solving decision-making models with uncertain data. Exact and approximation techniques for large-scale stochastic models. Prerequisite: ESI 6316.

ESI 6524 Advanced Industrial Systems Simulation (3). Advanced simulation techniques with a focus on practical systems modeling using several user-oriented simulation languages. Projects involving design of high-performance simulation programs are required. Prerequisite: ESI 5522 or equivalent. (S)

ESI 6528 Advanced Topics in Simulation Modeling (3). An examination of the role of artificial intelligence, object oriented programming, and databases as enabling technologies in the simulation modeling process. Review of the literature and case studies. Prerequisites: ESI 6524 or equivalent.

ESI 6546 Network Flow Analysis (3). Deterministic and stochastic network flow analysis; minimal cost flow, shortest route, max-flow, and out-of-kilter algorithms; constrained network analysis; and stochastic queueing networks. Prerequisite: ESI 3314.

ESI 6547 Stochastic Models of Industrial Systems (3). Applications of models from gaming, decisions analysis, queueing, inventory and scheduling to assess the performance level of industrial systems operating under random conditions. Prerequisite: ESI 6316.

ESI 6601 Data Warehousing and Mining (3). Knowledge discovery for effective design of data storage. Discussion of the difficulties associated with data warehousing and mining. Literature review and case studies.

TCN 5640 Telecommunications Enterprise Planning and Strategy (3). Methodologies for re-engineering, project management, strategic planning, change management, RFPs, and life-cycle management within the telecommunications and IT arena. Prerequisite: Permission of the instructor.

TCN 6420 Modeling and Performance Evaluation of Telecommunications Networks (3). Covers methods and research issues in the models and performance evaluation of high-speed and cellular networks. Focuses on the tools from Markov queues, queueing networks theory and applications. Prerequisites: TCN 5030 or equivalent.

TCN 6430 Networks Management and Control Standards (3). Protocols for management of telecom networks, including Simple Network Management Protocol and Common Management Information Protocol. Extension of protocols to optimize network performance. Prerequisites: TCN 5030 or equivalent.

TCN 6820 Industrial Development of Telecommunications (3). This course, from a management perspective, addresses the evolution of the telecom industry, the impact it has on reshaping our world, and the importance of management decisions in telecom.

TCN 6880 Telecommunications Public Policy Development and Standards (3). A concept-oriented examination of the domestic and international telecommunications policy processes and standards setting environment. Prerequisite: Permission of the instructor.

Mechanical and Materials Engineering

George S. Dulikravich, *Chairperson and Professor*

Arvind Agarwal, *Assistant Professor*

Wei Yu Bao, *Coordinator of Research*

Yiding Cao, *Associate Professor*

Jiuhua Chen, *Associate Professor and Graduate Program Director*

Wonbong Choi, *Associate Professor*

M. Ali Ebadian, *Professor*

Dennis Fan, *Instructor*

Gordon Hopkins, *Professor and Dean Emeritus*

W. Kinzy Jones, *Professor and Director, Advanced*

Materials Engineering Research Institute

Xiangxing Kong, *Research Assistant Professor*

Cesar Levy, *Associate Dean and Professor*

Norman Munroe, *Associate Professor and Program Director, Applied Research Center*

Surendra Saxena, *Professor and Director, Center for the Study of Matter at Extreme Conditions*

Carment Schenck, *Advisor/Instructor*

Ju Sun, *Instructor*

Ibrahim Tansel, *Associate Professor*

Yong Xin Tao, *Professor*

Sabri Tosunoglu, *Associate Professor and Undergraduate Program Director*

Igor Tsukanov, *Assistant Professor*

Chunlei (Peggy) Wang, *Assistant Professor*

Kuang-Hsi Wu, *Professor*

Mechanical Engineering, a major division of the engineering profession, plays a major role in our technologically advanced society. The design and manufacturing of power plants, automobiles, aircrafts, robots to improved methods of transportation and production by industrial robots are but a few important inventions that would not have been realized without the creativity associated with the mechanical engineering profession. The mechanical engineer is a vital ingredient in most industries that require automation, computers and medical technology, as well as areas as diverse as space exploration, environmental control and bioengineering. In fact, the mechanical engineer has a direct input in all facets of modern life. There is a high demand for graduates in mechanical engineering from high technology industries throughout the United States and the developing world. The Mechanical and Materials Engineering Department at FIU takes pride in providing well educated, and technologically competent graduates to serve these industries.

The academic program provides a well-balanced curriculum in the following areas of specialization:

- Mechanical Systems
- Mechanics
- Robotics and Mechatronics
- Thermo/fluid Systems
- Heating-Ventilation-and-Air-Conditioning (HVAC)
- Material Characterization
- Manufacturing and Automation Systems
- Materials Science and Engineering
- Multidisciplinary Design Optimization and Inverse Design

- Computational Analysis and Distributed Parallel Computing
- Biomechanics
- Laser and Plasma Materials Processing
- Nanomaterials
- Nanotechnology
- Electronic Packaging
- Optical Measurement and Diagnostics
- Waste Management
- Renewable Energy

Materials Science and Engineering is a dynamic field involved in the synthesis, structure, properties and performance of materials. Advanced materials are the foundation of manufactured products and many of the technological advances of this century were enabled by the development of new materials. Materials Science and Engineering is a graduate program only, with undergraduate electives offered in the Mechanical Engineering curriculum to prepare the student for graduate education in materials science and engineering. The academic program offers specialization in metallurgy, ceramics, electronic materials, nanomaterials and biomaterials. There is an increasing demand for graduates in materials science and engineering, with high technology industries leading the need for graduates. In fact, many of the companies needing materials scientists and engineers did not exist 20 years ago. Because everything is made of materials and new materials, such as nanomaterials, are rapidly being developed, materials science and engineering is a growth field in engineering.

Opportunities also exist for conducting research in the following Centers:

Advanced Materials Engineering Research Institute

(AMERI): This center provides open access to research instrumentation, characterization capabilities and process development laboratories to support materials science and engineering research over the range from nanomaterials to bulk properties. AMERI also houses a nanofabrication facility for device fabrication.

The Center for the Study of Materials under Extreme

Conditions (CeSMEC): The center focuses on study of physical property and synthesis of materials at extreme conditions of pressure, temperature and size. The center is equipped with state of the art facilities in X-ray diffraction, spectroscopy, thermodynamic and first principle computations. Recent additions are hydride synthesis and diamond-growth facilities.

Multidisciplinary Analysis, Inverse Design, Robust Optimization and Controls (MAIDROC) Laboratory:

Has a 128-processor parallel computer running Linux and MPI. MAIDROC provides independent, secure, and up-to-date computing environment for diverse large-scale simulation projects that involve several engineering disciplines such as fluid dynamics, solid mechanics, heat transfer, electro-magnetics and chemistry.

Graduate Certificate in Mechanical Engineering

The Graduate Certificate in Mechanical Engineering is open to students and engineers who hold a B.S. degree in engineering or a closely-related field of study from an accredited program. The objective of this certificate is to provide a vehicle for the career enhancement of practicing

engineers and serve the needs of recent B.S. graduates and graduate students in other programs. The program consists of two concentration areas; Design, Mechanics and Robotics area, and Thermo-Fluids area, reflecting the diverse nature of mechanical engineering.

Admission Requirements

The applicants for the Graduate Certificate in Mechanical Engineering must have a B.S. degree in engineering or a closely-related field from an accredited program, and have a GPA of a least 3.0 in the last two years of undergraduate studies, or a GPA of at least 2.5 in conjunction with significant related work experience.

Course Requirements

A total of 18 credit hours (6 three-credit courses) must be completed with a GPA of 3.0 or better to receive the Graduate Certificate in Mechanical Engineering. Two courses (six-credits) are core courses and must be taken by all students. The remaining twelve credits may be selected from one of two concentration areas.

Core Courses (6 credits):

EGM 5346 Computational Engineering Analysis 3

Select one of the following two courses:

EGM 5354 Finite Element Method Applications in Mechanical Engineering 3

EGM 6422 Advanced Computational Engineering Analysis 3

Elective Courses (12 credits):

Select four courses either from the (1) Design, Mechanics and Robotics concentration area, or the (2) Thermo-Fluids area:

(1) Design, Mechanics and Robotics Area:

EML 5385 Identification Techniques of Mechanical Systems 3

EML 5505 Smart Machine Design and Development 3

EML 5509 Mechanical Design Optimization 3

EML 5530 Intermediate CAD/CAE 3

EGM 5615 Synthesis of Engineering Mechanics 3

EML 5808 Control Technology for Robotic Systems 3

EML 6805 Advanced Design of Robots 3

(2) Thermo-Fluids Area:

EML 5103 Intermediate Thermodynamics 3

EML 5152 Intermediate Heat Transfer 3

EML 5606C Advanced Refrigeration and AC Systems 3

EML 5709 Intermediate Fluid Mechanics 3

EML 5725 Computational Fluid Dynamics 3

Master of Science in Mechanical Engineering

Admission Requirements

The Department of Mechanical and Materials Engineering offers both thesis and non-thesis options for the Master's Degree in Mechanical Engineering. A student seeking the Master's degree with or without thesis is required to pass a comprehensive oral or written examination.

All work counted for the Master's degree must be completed during the six years immediately following the date of admission.

The program provides a broad education, covering more than one field, followed by in-depth studies in areas of interest.

Admission Requirements

The following is in addition to the University's graduate admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, physical sciences, computer science or mathematics from an accredited institution, or, in the case of foreign students, from an institution recognized in its own country as preparing students for further study at the graduate level.

2. An applicant must have achieved a "B" average, GPA of 3.0 in upper level undergraduate work.

3. Applicants who have not satisfied the above will be evaluated for probationary or waiver admission.

4. In addition to the above criteria, International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL (equivalent to 550 on the paper-based version, or 213 on the computer-based version of the Test of English as a Foreign Language) or 6.3 overall on the IELTS is required.

5. The GPA and TOEFL scores specified above are to be considered minimum requirements for admission. Applicants from science areas other than mechanical engineering will be expected to complete remedial undergraduate courses selected to prepare them for graduate courses in their area of interest. Full admission to the graduate program requires the completion of these background courses with no grades below 'C' and a grade point average of 3.0 or better.

Graduation Requirements

The M.Sc. degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Department.

2. Certification provided by the Department Chair, College Dean, and University Graduate School that all degree requirements have been met.

3. Completion of the two applied/computational mathematics courses offered by the department, two courses outside student's major area and other courses as suggested by the student's major professor and committee.

4. Completion of undergraduate course deficiencies specified at admission, if any, with no grades below 'C' and a GPA ≥ 3.0 .

5. Thesis option: Successfully completed a minimum of 30 semester hours of graduate course work as specified in an approved study plan containing at least 6 hours of 6000 level courses with a GPA ≥ 3.0 (the minimum successful grade is a 'C'). Not more than six semester hours transferred from another accredited graduate program that was not part of a previously awarded degree may be incorporated in the study plan plus a minimum of six hours of masters thesis research.

Non-thesis option: Successfully completed a minimum of 33 semester hours of graduate course work as specified in an approved study plan containing at least 9 hours of 6000 level courses with a GPA ≥ 3.0 (not more than six semester hours transferred from another accredited graduate

program that was not part of a previously awarded degree may be incorporated in the study plan).

6. Thesis option: Successful public oral defense of the thesis. Submission of the approved thesis to the Graduate School.

Non-thesis option: Successful completion of a final oral comprehensive examination covering the general objectives of the study plan.

7. Students must achieve an overall GPA ≥ 3.0 in all graduate work completed at FIU in their approved study plan.

8. Students must complete the Graduate Seminar course.

9. Students must comply with all relevant University policies and regulations.

Thesis Option

A student shall complete a minimum of 24 semester credit hours of course work, plus a minimum of 6 semester credit hours of EML 6971, Master's Thesis Research, and take MME Graduate Seminar.

The course requirements include a minimum of 12 hours of 6000-level course credit including thesis hours. A maximum of 6 credit hours of courses offered by other departments may be included among the 24 course hour minimum. A maximum of three credit hours of approved independent studies, EML 6908, may be counted toward the M.S. thesis degree. A maximum of six graduate credit hours can be transferred from other accredited institutions provided that the courses have not been used for another degree and have a minimum letter grade of 'B' and meet university requirements. Transfer courses must be approved by the advisor and Graduate Coordinator.

Early in the program (before the middle of the second term) the student and advisor will complete a study plan that specifies the courses that will comprise the program.

When the thesis research is completed, the student should schedule a defense with an examining committee appointed through the Graduate School consisting of at least three graduate faculty members (at least two of whom should be from the MME Department). The thesis, with an approval cover letter from the advisor, should be given to the examining committee for review not less than four weeks before the scheduled defense. The candidate should prepare to summarize the thesis in the manner of a technical paper using appropriate visual aids in 40 minutes or less. Following the presentation, the candidate will answer questions related to the work from the audience and/or the committee. At the conclusion of the defense, the committee will agree on the outcome -pass or fail- and report the results to the Graduate School. Following the exam the student will implement the committee's suggestions for improving the draft document. Each committee member must sign the approval form in the final document. Copies of the approved thesis must be provided to the advisor, department, and the library. Students should become familiar with the University Graduate School's regulations and deadlines available on line at <http://gradschool.fiu.edu>.

Non-Thesis Option

A student shall complete a minimum of 33 semester credit hours of graduate course work, and one semester of Graduate Seminar. Non-thesis students are encouraged to do a three-credit project under the independent study course registration. An approved study plan must include

at least 9 credits of 6000 level graduate course work, including the project if elected. Up to nine credit hours of graduate course work from other departments may be included among the minimum of 33 credits. A maximum of six graduate credits from other accredited graduate programs completed with a 'B' or better and not counted toward a previous degree may be included in the study plan. Transfer credits must meet university requirements. The advisor and the Graduate Coordinator must approve transfer courses if they are to be included in a study plan. A maximum of three credits of independent study beyond an independent project may be included in a study plan.

Non-thesis students are required to take a final oral comprehensive exam dealing with the objectives of their study plan. If a project has been completed, the student will briefly summarize the project report (20 minutes) as a part of the exam. The examining committee will include a minimum of three faculty members, at least two of whom should be from the department.

Course Requirements

All MSME degree seeking students must take two of the following applied/computational mathematics courses offered by MME department plus the MME graduate seminar.

EGM 5315	Intermediate Analysis of Mechanical Systems	3
EGM 5346	Computational Engineering Analysis	3
EGM 5354	Finite Element Method Applications in Mechanical Engineering	3
EGM 6355	Nonlinear Finite Element Analysis	3
EGM 6422	Advanced Computational Engineering Analysis	3
EML 6725	Computational Fluid Dynamics	3
EML 6935	Graduate Seminar	0

An additional six credit hours of courses must be taken outside the specialty of major area of the student. The remaining 4 courses should in the area of the student's specialization or as suggested by the student's major professor and committee. A maximum of three credit hours of approved independent studies, EML 6908, may be counted towards the M.S. thesis degree.

Thermo/Fluid (Each course is 3 credits unless stated otherwise)

EML 5103	Intermediate Thermodynamics
EML 5104	Classical Thermodynamics
EML 5152	Intermediate Heat Transfer
EML 5606C	Advanced Refrigeration & A/C Systems
EML 5615C	Computer Aided Design in A/C
EML 5708	Advanced Design of Thermal and Fluid Systems
EML 5709	Intermediate Fluid Mechanics
EML 6153C	Advanced Heat Transfer
EML 6154	Conduction Heat Transfer
EML 6155	Convection Heat Transfer
EML 6157	Advanced Radiation Heat Transfer
EML 6712C	Advanced Fluid Mechanics
EML 6714	Advanced Gas Dynamics
EML 6725	Computational Fluid Dynamics

Mechanics/Materials (Each course is 3 credits unless stated otherwise)

EGM 5346	Computational Engineering Analysis
EGM 5354	Finite Element Method Appl in ME
EGM 5615	Synthesis of Engineering Mechanics
EGM 6570	Fracture Mechanics

EMA 5295	Principles of Composite Materials
EMA 5507C	Analytical Techn. of Materials Sciences
EMA 5935	Advanced Topics in Materials Engineering
EMA 6127C	Advanced Physical & Mechanical Metallurgy
EMA 6165C	Polymer Physics & Analytical Techniques
EML 5505	Smart Machine Design and Development
EML 5509	Mechanical Design Optimization
EML 5125	Classical Dynamics
EML 5385	Identification Techniques of Mech. Systems
EML 5562	Advanced Electronic Packaging
EML 6223	Advanced Mech. Vibration Analysis
EML 6233	Fatigue and Failure Analysis
EML 6805	Advanced Design of Robots

Design and Manufacturing

EML 5385	Identification Techniques of Mechanical Systems
EML 5505	Smart Machine Design and Development
EML 5509	Mechanical Design Optimization
EML 5530	Intermediate CAD/CAE
EML 5562	Advanced Electronic Packaging
EGM 5615	Synthesis of Engineering Mechanics
EML 5808	Control Technology for Robotic Systems
EML 5825	Sensors and Applied Machine Intelligence
EML 6223	Advanced Mechanical Vibration Analysis
EML 6532	Advanced CAD/CAE
EGM 6570	Fracture Mechanics
EML 6805	Advanced Design of Robots

Combined Bachelor's/Master's (BS/MS) Program

Students, who pursue a BS degree and are in their first semester of the senior year, with at least a 3.25 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the MS program. Students applying to the combined program are not required to pay the application fee. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six credit hours of MME graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. During this combined BS/MS program, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to three major semesters to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this three-major-semester post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs

as any other student, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of MME graduate courses toward the elective engineering BS requirements as well as toward the MS degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Master of Science in Materials Science and Engineering

Admission Requirements

The Department of Mechanical and Materials Engineering offers both thesis and non-thesis options for the Master's Degree. A student seeking the Master's degree with or without thesis is required to pass a comprehensive oral or written examination.

All work counted for the Master's degree must be completed during the six years immediately following the date of admission.

The program provides a broad education, covering more than one field, followed by in-depth studies in areas of interest.

Admission Requirements

The following is in addition to the University's graduate admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, physical sciences, computer science or mathematics from an accredited institution, or, in the case of foreign students, from an institution recognized in its own country as preparing students for further study at the graduate level.

2. An applicant must have achieved a "B" average, GPA of 3.0 in upper level undergraduate work and a combined score of 1100 on the Graduate Record Examination with the following minimum scores on the individual components: verbal ≥ 350 and quantitative ≥ 650 .

3. Applicants who have not satisfied the above will be evaluated for conditional admission.

4. In addition to the above criteria, International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL (equivalent to 550 on the paper-based version, or 213 on the computer-based version of the Test of English as a Foreign Language) or 6.3 overall on the IELTS is required.

5. The GPA, GRE and TOEFL scores specified above are to be considered minimum requirements for admission. Applicants from science areas other than mechanical engineering will be expected to complete undergraduate courses selected to prepare them for

graduate courses in their area of interest. Full admission to the graduate program requires the completion of these background courses with no grades below 'C' and a grade point average of 3.0 or better.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Department.
2. Certification provided by the Department Chair, College Dean, and University Graduate School that all degree requirements have been met.
3. Completed the two department core course requirements plus the two required core courses in the student's major area.
4. Completed undergraduate course deficiencies specified at admission, if any, with no grades below 'C' and a GPA ≥ 3.0 .
5. Thesis option: Successfully completed a minimum of 30 semester hours of graduate course work as specified in an approved study plan containing at least 6 hours of 6000 level courses with a GPA ≥ 3.0 (the minimum successful grade is a 'C'; not more than six semester hours transferred from another accredited graduate program that was not part of a previously awarded degree may be incorporated in the study plan) plus a minimum of six hours of masters thesis.

Non-thesis option: Successfully completed a minimum of 27 semester hours of graduate course work as specified in an approved study plan and a 3 credit hour project with a GPA ≥ 3.0 (not more than six semester hours transferred from another accredited graduate program that was not part of a previously awarded degree may be incorporated in the study plan).

6. Thesis degree: Successful public oral defense of the thesis. Submission of the approved thesis to the Graduate School.

Non-thesis degree: Successful completion of a formal report and presentation.

7. Students must achieve an overall GPA ≥ 3.0 in all graduate work completed at FIU in their approved study plan.

8. Completed one semester of the Graduate Seminar course.

9. Complied with all relevant University policies and regulations.

Thesis Option

A student shall complete a minimum of 24 semester credit hours of course work, plus a minimum of 6 semester credit hours of EMA 6971, Master's Thesis, and MME Graduate Seminar.

A maximum of 6 credit hours of courses offered by other departments may be included among the 24 course hour minimum. A maximum of three credit hours of approved independent studies, EML 6908, may be counted toward the M.S. thesis degree. A maximum of six graduate credit hours can be transferred from other accredited institutions provided that the courses have not been used for another degree and have a minimum letter grade of 'B'. Transfer courses must be approved by the advisor and Graduate Coordinator.

Early in the program (before the end of the second term) the student and advisor will complete a study plan that specifies the courses that will comprise the program.

When the thesis research is completed, the student should schedule a defense with an examining committee appointed through the University Graduate School consisting of a least three graduate faculty members (at least two of whom should be from the department). The thesis, with an approval cover letter from the advisor, should be given to the examining committee for review not less than two weeks before the scheduled defense. The candidate should prepare to summarize the thesis in the manner of a technical paper using appropriate visual aids in 40 minutes or less.

Following the presentation, the candidate will answer questions related to the work from the audience and/or the committee. At the conclusion of the defense, the committee will agree on the outcome -pass or fail- and report the results to the Graduate School. Following the exam the student will implement the committee's suggestions for improving the draft document. Each committee member must sign the approval form in the final document. Hardcover bound copies of the approved thesis must be provided to the advisor and the department. Students should become familiar with the University Graduate School's regulations and deadlines available on line at <http://gradschool.fiu.edu>.

Non-Thesis Option

A student shall complete a minimum of 30 semester credit hours of graduate course work, and one semester of Graduate Seminar. Non-thesis students are encouraged to do a three-credit project under the independent study course registration. Up to nine credit hours of graduate course work from other departments may be included among the minimum of 30 credits. A maximum of six graduate credits from other accredited graduate programs completed with a 'B' or better and not counted toward a previous degree may be included in the study plan. The advisor and the Graduate Coordinator must approve transfer courses if they are to be included in a study plan. A maximum of three credits of independent study beyond an independent project may be included in a study plan.

Non-thesis students are required to submit a formal report and presentation of the project, with the report and presentation evaluated by an examining committee that will include a minimum of three faculty members, at least two of whom should be from the department.

Areas of Specialization

Metals and Alloys
Electronic Materials
Ceramics
Polymers and Biomaterials
Nanomaterials

Course Requirements

All MSMSE degree seeking students must take the following two courses or equivalent plus one seminar as common core courses:

EMA 5106	Thermodynamics and Kinetics of Materials	3
EMA 5001	Physical Properties of Materials	3
EML 6935	Graduate Seminar	0

Select two of the following courses with advisor approval:

EMA 5140	Introduction to Ceramics	3
EMA 5507C	Analytical Methods in Material Science	3

EMA 6127C	Mechanical Metallurgy	3
EMA 6165C	Polymer Science	3
EMA 6399C	Electronic Properties of Material Science	3

The remainder of the courses shall be chosen from the electives with consultation of the student's advisor. Additionally, up to six hours may be taken from courses offered by other departments.

MSMSE Elective Courses:

EEL 6332	Thin Film Engineering	3
EML 5103	Inter. Thermodynamics	3
EMA 5xxx	Surface Science	3
EMA 5295	Principles of Composite Materials	3
EGM 5354	FEM Applications in Engineering	3
EGN 5367	Industrial Materials and Engineering Design	3
EMA 6126	Adv. Physical Metallurgy	3
EML 6233	Fatigue and Failure Analysis	3
EGM 6355	Nonlinear Finite Element Analysis	3
EML 5509	Mechanical Design Optimization	3
EML 5562	Adv. Electronic Packaging	3
EML 6908	Independent Study	1-3
EML 6971	Master Thesis	1-6
EMA 5015	Introduction to Nanomaterials Engineering	3
EMA 5104	Adv. Mechanical Properties of Materials	3
EMA 5016	Nanoelectronic Materials	3
EMA 5017	Nanoparticle Technology	3
EMA 5018	Nanoscale Modeling of Materials	3
EMA 5646	Ceramic Processing	3
EMA 5605	Fundamentals of Materials Processing	3
EMA 6518	Transmission Electron Microscopy	3
EMA 6665	Polymer Processing and Engineering	3
EMA 6449	Electronic Properties of Ceramic Materials	3
EMA 6264	Mechanical Properties of Polymers	3

Doctor of Philosophy in Mechanical Engineering

Admission Requirements

The requirements for admission to the doctoral program in Mechanical Engineering for applicants having a Bachelor's degree in Mechanical Engineering from an accredited institution are the following:

- GPA of at least 3.0/4.0 in the last 60 upper level credit hours
- GRE of at least 1150 points on the verbal and quantitative sections with the following minimum on the individual components: verbal \geq 450 and quantitative \geq 650.
- Three letters of recommendation.
- International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
- Applicants having a Master's degree in Mechanical Engineering from an accredited institution must also satisfy the above requirements for admissions to the doctoral program; however a GPA of at least 3.3/4.0 in the Master's program is also required.

Credentials of all other applicants will be examined by the Graduate Admission Committee on a case by case basis.

In addition to the departmental requirements, all students must satisfy the University's Graduate Policies and Procedures.

Identification of Research Area

Within 4 months upon acceptance into the Ph.D. program, the student having a Master's Degree has to identify an area of research of his or her interest by contacting and being accepted by a professor willing to guide the dissertation research. The student with a Bachelor's degree should identify the area of research within 12 months upon acceptance into Ph.D. program. If no professor is obtained, the student will be dismissed from the Ph.D. program. Contact the department for a list of the graduate faculty members and their research interests.

Course Requirements

Applicants having a Bachelor's degree in Mechanical Engineering are required to complete at least 78 credit hours, of which at least 54 hours must be course work and 24 hours dissertation. The credit hours earned towards the Ph.D. program have the following requirements:

- At least 30 credits at the 5000 level or higher, not to include dissertation.
- At least 15 credits at the 6000 level or higher, not to include dissertation.
- Breadth criteria could be satisfied by taking 3 courses in a field/area outside the student's own field.
- Two applied/computational mathematics courses as suggested for M.S. program.
- A minimum of 24 credits of dissertation.
- A maximum of 6 semester hours of graduate credit earned from another accredited institution that was not used for a previous degree may be transferred as long as the courses were completed within the six years preceding admission to the program and meet university requirements.

Applicants entering the Ph.D. program with a Masters degree should meet the following requirements:

- Breadth criteria could be satisfied by taking 3 courses in a field/area outside the student's own field.
- A minimum of 24 credits of dissertation.
- Additional courses to be determined by candidate's dissertation committee.

Applicants having a Master's Degree in any Engineering discipline from an accredited institution may include a maximum of 30 semester hours as part of their requirements.

Elective Courses: Possible elective courses from the Mechanical Engineering department include:

Thermo/Fluid

EML 5103	Intermediate Thermodynamics
EML 5104	Classical Thermodynamics
EML 5152	Intermediate Heat Transfer
EML 5606C	Advanced Refrigeration & A/C Systems
EML 5615C	Computer Aided Design in A/C
EML 5708	Advanced Design of Thermal and Fluid Systems
EML 6153C	Advanced Heat Transfer
EML 6154	Conduction Heat Transfer
EML 6155	Convection Heat Transfer
EML 6157	Advanced Radiation Heat Transfer

EML 6712C	Advanced Fluid Mechanics
EML 6714	Advanced Gas Dynamics
EML 6725	Computational Fluid Dynamics

Mechanics/Materials

EGM 5346	Computational Engineering Analysis
EGM 5354	Finite Element Method Appl in ME
EGM 6570	Fracture Mechanics
EMA 5295	Principles of Composite Materials
EMA 5106	Thermodynamics and Kinetics of Materials
EMA 5001	Physical Properties of Materials
EMA 5507C	Analytical Techn. of Materials Sciences
EMA 6127C	Advanced Physical & Mechanical Metallurgy
EMA 6165C	Polymer Physics & Analytical Techniques
EML 5505	Smart Machine Design and Development
EML 5509	Mechanical Design Optimization
EML 5125	Classical Dynamics
EML 5385	Identification Techniques of Mech. Systems
EML 5562	Advanced Electronic Packaging
EML 6223	Advanced Mech. Vibration Analysis
EML 6233	Fatigue and Failure Analysis
EML 6805	Advanced Design of Robots

Design and Manufacturing

EML 5385	Identification Techniques of Mechanical Systems
EML 5505	Smart Machine Design and Development
EML 5082	Advanced Nondestructive Testing and Mechanical Health (MME)
EML 5509	Mechanical Design Optimization
EML 5519	Fault-Tolerant System Design
EML 5562	Advanced Electronic Packaging
EML 5808	Control Technology for Robotic Systems
EML 5825	Sensors and Applied Machine Intelligence
EML 6223	Advanced Mechanical Vibration Analysis
EML 6532	Advanced CAD/CAE
EML 6805	Advanced Design of Robots

Residency Requirements

The program will provide student access to a wide range of support facilities including research library, cultural events, and other occasions for intellectual growth associated with campus life, significant faculty/student interaction, opportunities for student exposure to and engagement with cognate disciplines and research scholars working in those disciplines, and significant peer interaction among graduate students. Students will be provided with the opportunity for a mentoring apprenticeship relationship with faculty and students as well as adequate time for in-depth evaluation of the student. To satisfy the residency requirement for the Ph.D. degree, the candidate must complete a minimum of 18 credit hours within a period of 12 months at the University.

Graduate Supervisory and Research Committee

The student's Ph.D. Graduate Supervisory and Research Committee should be appointed as soon as possible and no later than 4 months after being admitted to the Ph.D. program. Consult the Graduate Guidelines in the

department for more details on how to select the committee members.

Ph.D. Course Breadth Requirements

Breadth criteria could be satisfied by taking 3 courses in a field/area outside student's own field. Examinations and Proposal and Final Defense Student must demonstrate graduate knowledge acquisition in four incremental stages in order to be awarded a Ph.D. in Mechanical Engineering. Stage I -Qualifying Exam (QE)
Stage II -Proposal Defense (Graduate Seminar)
Stage III Comprehensive Exam (CE) which is the PhD Candidacy Examination
Stage IV -Final Defense
In the semester prior to his/her taking the QE or CE, student must declare intention to take QE or CE and must declare a major field or area of research..

I. Qualifying Exam (QE)

General written exam to test masters level knowledge.

A student who is admitted to the Ph.D. program with a bachelors degree must take the QE no later than the beginning of the 4th major semester after admission, and a student who enters the Ph.D. program with a masters degree must take and pass the QE no later than the beginning of the 2nd major semester after admission. Students may petition for exceptions from the departmental graduate committee by one major semester at a time. A student who fails the QE may retake the exam once only.

II. Proposal Defense (PD)

The dissertation proposal will be presented by the student in the form of a Graduate Seminar in which he/she must submit a proposal for his/her dissertation.

Students must declare their proposal subject after taking the Qualifying Exam but before taking the Comprehensive Exam.

III. Comprehensive Exam (CE) Candidacy Examination

The objective of the CE is to assess the depth of knowledge in the major field of research. The examination will be developed by the student's dissertation committee. It must be taken before the end of the 2nd semester of Year 3.

IV. Final Defense (FD)

There will be a public defense at a graduate seminar. The defense can be failed no more than twice.

The final defense should be presented no later than the 4th year after the master's degree and no later than the 6th year after the bachelor's degree.

Following the successful defense of the dissertation, as determined by a majority vote of the student's examining committee, the dissertation must be forwarded to the Dean of the College of Engineering and Computing and the Dean of the University Graduate School for their approval.

All dissertations submitted in fulfillment of the requirements for graduate degrees must conform to University guidelines (see "Regulations for Thesis and Dissertation Preparation Manual"). One final and approved copy of the dissertation must be delivered to the Chairperson of the Department of Mechanical Engineering and one to the advisor, in addition to the copies required by the University Graduate School.

Financial Aid

Consult the Department for information on research and teaching assistantships available for doctoral students.

Doctor of Philosophy in Materials Science and Engineering

The Ph.D. in Materials Science and Engineering will prepare graduates for industrial and/or academic research as well as for higher level jobs in materials related industry in one (or more) of five areas of specialization: 1) electronic materials, 2) nanotechnology, 3) metals and alloys, 4) ceramics, and 5) polymer science and biomaterials.

The Ph.D. will require a minimum total of 78 credit hours beyond the B.S. degree. These credits will be comprised of a minimum of 30 hours of coursework and a minimum of 24 hours of dissertation.

Admission Requirements

The requirements for admission to the doctoral program in Materials Science and Engineering for applicants having a Bachelor's degree in Materials Science and Engineering or in a related field, e.g. Mechanical Engineering, Electrical Engineering, Physics, Chemistry, and Geophysics from an accredited institution are the following:

- GPA of at least 3.0/4.0 in the last 60 credit hours attempted.
- GRE of at least the following minimum on the individual components: verbal ≥ 450 , quantitative ≥ 650 ; Total Verbal and Quantitative ≥ 1150 .
- Three letters of recommendation.
- International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL (equivalent to 550 on the paper-based version, or 213 on the computer-based version of the Test of English as a Foreign Language) or 6.3 overall on the IELTS is required.
- Applicants having a Master's degree in Materials Science and Engineering from an accredited institution must also satisfy the above requirements for admissions to the doctoral program; however, a GPA of at least 3.3/4.0 in the Master's program is also required.

Credentials of all other applicants will be examined by the Graduate Admission Committee on a case-by-case basis. In addition to the departmental requirements, all students must satisfy the University's Graduate Policies and Procedures.

Course Requirements

Applicants having a Bachelor's Degree are required to complete at least 78 credit hours, out of which at least 30 hours must be coursework and 24 hours dissertation. The credit hours earned towards the Ph.D. program have the following requirements:

- At least 24 credits at the 5000 level or higher, not to include dissertation.
- At least 15 credits at the 6000 level or higher, not to include dissertation.
- 9 credits outside the listed courses for Materials Science and Engineering (per advisor permission).

Applicants having a Master's Degree in any Engineering discipline from an accredited institution may include a maximum of 30 semester hours from their previous course of study.

Materials Science and Engineering Courses

Fundamentals

EMA 5001	Physical Properties of Materials (Required core course for MSMSE)
EMA 5106	Thermodynamics and Kinetics of Materials (Required core course for MSMSE)
PHZ 5405	Solid State Physics

Specialty Areas

Metals and Alloys

EMA 5104	Advanced Mechanical Properties of Materials
EMA 5295	Principle of Composite Materials
EMA 6126	Advanced Physical Metallurgy
EMA 6127C	Advanced Physical and Mechanical Metallurgy
EMA 6185	Advanced Mechanics of Composites
EGM 6570	Fracture Mechanics
EGM 7574	Advanced Fracture Mechanics
EML 6233	Fatigue and Fracture Analysis

Electronic Materials

EEL 6315	Advanced Solid State Electronics
EEL 6399	Electronic Properties of Materials
EMA 5016	Nanoelectronic Materials
PHZ 6426	Advance Solid State Physics

Ceramics

EMA 5140	Introduction to Ceramic Materials
EMA 6646	Ceramic Processing
EMA 6449	Electronic Properties of Ceramic Materials

Polymers

CHM 6511	Polymer Chemistry
EMA 5584	Biomaterials Science
EMA 6165C	Polymer Physics and Analytical Techniques
EMA 6264	Mechanical Properties of Polymers
EMA 6665	Polymer Processing and Engineering

Analytical Techniques in Materials Science

EMA 5507	Analytical Techniques in Materials Science
EMA 6516	Crystallography and X-ray Diffraction
EMA 6518	Transmission Electron Microscopy
GLY 5287C	Scanning Electron Microscopy with EDS Analysis
GLY 5288C	Electron Microprobe Microanalysis with EDS Analysis
PHZ 6437	Surface Physics

Nano Structured Materials

EEL 6315	Advanced Solid State Electronics
EEL 6332	Thin Film Engineering
EMA 5017	Nanoparticle Technology
EMA 5015	Introduction to Nanomaterials
EMA 5016	Nanoelectronic Materials

It is important that there will be three 6000 level courses developed for each specialization.

Qualifying Examination and Candidacy Requirements

A student must demonstrate acquisition of graduate knowledge in three incremental stages in order to be awarded a Ph.D. in Materials Science Engineering:

I. Qualifying Examination (QE)

The Qualifying Examination is the general written exam to test master's level knowledge. The exam will cover materials taught in the required courses for the MSMSE. A student who is admitted to the Ph.D. program with a bachelor's degree must take the QE no later than the second term of the 2nd year after admission, and a student who enters the Ph.D. program with a master's degree must take and pass the QE no later than the 2nd term after admission. Students may petition for exceptions from the graduate student committee. A student who fails the QE may retake the QE exam only once.

II. Proposal Defense

The dissertation proposal will be presented by the student in the form of a Graduate Seminar, in which he/she must submit a proposal for his/her dissertation. Students must declare their proposal subject within 6 months after taking the Qualifying Examination.

III. Comprehensive Exam (CE) Candidacy Examination

The objective of the CE is to assess the depth of knowledge in the major field of research. The examination will be developed by the student's dissertation committee. It must be taken before the end of the 2nd semester of Year 3.

IV. Final Defense (FD)

There will be a public defense at a graduate seminar. The defense can be failed no more than once. The final defense should be presented no later than the 4th year after the master's degree and no later than the 6th year after the bachelor's degree.

Following the successful defense of the dissertation, as determined by a majority vote of the student's examining committee, the dissertation must be forwarded to the Dean of the College of Engineering and Computing and the Dean of the University Graduate School for their approval.

All dissertations submitted in fulfillment of the requirements of graduate degrees must confirm to University guidelines (see "Regulations for Thesis and Dissertation Preparation Manual"). One final and approved copy of the dissertation must be delivered to the Chairperson of the Department of Mechanical and Materials Engineering in addition to the copies required by the University Graduate School.

Course Descriptions

Definition of Prefixes

EAS – Engineering; Aerospace

EGM – Engineering; Mechanics

EGN – Engineering; General

EMA – Engineering; Materials

EML – Engineering; Mechanical

EAS 5124 Aerodynamics and Flight Mechanics (3). Fundamentals of aerodynamics, definition of aerodynamic shapes, analysis of aerodynamic forces, airplane performance, and flight stability and control. Prerequisites: EGN 3321, EML 3126, EGN 3343.

EAS 6185 Turbulence (3). Fundamentals of turbulent flow, solutions for bounded and free turbulent flows, dynamics of turbulence, statistical description of turbulence, spectral dynamics, and stability.

EGM 5315 Intermediate Analysis of Mechanical Systems (3). First course at the graduate level in the analysis of mechanical systems. Modeling of the system and analytical and numerical methods of solution of the governing equations will be studied. Fluid and thermodynamic systems will be emphasized in this course. Prerequisites: EGM 3311 or permission of the instructor.

EGM 5346 Computational Engineering Analysis (3). Application of computational methods to mechanical engineering problems of translational, rotational, control, thermal and fluid systems employing linear/nonlinear system elements. Prerequisites: EML 2032, MAP 2302, and EML 3222, or permission of the instructor.

EGM 5354 Finite Element Method Applications in Mechanical Engineering (3). Utilize the finite element method to solve problems in heat transfer, fluid dynamics, diffusion, acoustics, vibration, and electromagnetism, as well as the coupled interaction of these phenomena. Prerequisites: EML 3022, EMA 3702, and EML 4140.

EGM 5615 Synthesis of Engineering Mechanics (3). Unified approach to the analysis of continuous media using constitutive equations, mechanical behavior of materials and their usefulness in handling failure theories and composite materials. Prerequisites: MAP 2302 or EGM 3311, and EMA 3702.

EGM 5935 Review of Topics in Mechanical Engineering (4). To prepare qualified candidates to take the Mechanical Engineering PE written examination. Reviewed courses include Thermodynamics, Fluid Mechanics, Mechanics of Materials, Mechanical Design and Heat Transfer.

EGM 6355 Nonlinear Finite Element Analysis (3). Nonlinear finite element analysis. Geometric and material nonlinearities will be considered in the formulation of different finite elements. Prerequisite: Permission of the instructor.

EGM 6422 Advanced Computational Engineering Analysis (3). Modeling of vibrational and dynamic systems including solution of governing equations by analytical and numerical techniques. Prerequisites: EGM 5346 or permission of the instructor.

EGM 6455 Impact Dynamics (3). Mechanical impact, point-mass collisions, vibratory impact, stress waves in solids, elastic-plastic stress waves, low velocity impact, penetration and perforation applications. Prerequisites: EGN 3321 and EMA 3702.

EGM 6570 Fracture Mechanics (3). Griffith's and Irwin's fracture criteria; stress intensity factors evaluation; crack-tip plastic zone; fracture toughness measurement; crack initiation; fatigue crack growth; stress corrosion cracking. Prerequisite: EGM 5615.

EGM 6654 Advanced Theory of Elasticity (3). Modern methods of stress and strain analysis including two-dimensional problems of stress concentration, contact adhesion, friction, thermal stresses, and dynamic waves.

Prerequisites: EGM 5615, EGM 5315, or permission of the instructor.

EGM 7456 Advanced Impact Dynamics (3). High velocity impact mechanics, hyper velocity impact mechanics, penetration mechanics, long rod and plate penetration mechanics, dynamic fracture, kinetic energy penetration, analytical modeling. Prerequisites: EML 6455 and permission of the instructor.

EGM 7574 Advanced Fracture Mechanics (3). Modern fracture mechanics including invariant integrals, nano-scale fracture, environmental fracture, penetration mechanics, failure waves, erosion, and fracture by electron and laser beams. Prerequisites: EGM 6570, EGM 6422.

EGM 7575 Cutting Mechanics (3). Study of cutting stress, impact stress, stress and strain waves, tensile failure, shear-tension couples, responses in cutter and material, mechanics in body, fiber and molecular structures. Prerequisites: EML 6455 and permission of the instructor.

EGM 7676 Classic Topics of Nonlinear Mechanics (3). Classic topics on nonlinear mechanics, such as Theory of Plasticity of Solids, and the Theory of Jets and Cavities of Fluids. Prerequisites: EGM 5315, EGM 6422, EGM 5615, EML 5709.

EGN 5367 Industrial Materials and Engineering Design (3). Industrial materials, material selection, and engineering design process, including synthesis, analysis, optimization, and evaluation.

EMA 5001 Physical Properties of Materials (3). The physical properties of materials, including the influence of structure on properties, thermodynamics of solids and phase transformations and kinetics on microstructural development. Prerequisite: EGM 4521C.

EMA 5015 Introduction to Nanomaterials Engineering (3). The science and engineering of nanomaterials, the fabrication, behavior, and characterization of the nano-size particles and materials. Prerequisites: EGN 3365, EGM 3311.

EMA 5016 Nanoelectronic Materials (3). Course provides an understanding of nanotechnology based on materials engineering. Topics include energy bands in semiconductors, MOSFET scaling, materials processing and other applications. Prerequisite: EGN 3365.

EMA 5017 Nanoparticle Technology (3). An interdisciplinary overview of the nanoparticle engineering. Synthesis of nanoparticles, nanoparticle growth and transport, characterization methods, and applications. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5018 Nanoscale Modeling of Materials (3). Overview of computational nanotechnology. Modeling, simulation and design of nanomaterials. Energy minimization, molecular dynamics and advanced multiscale numerical techniques. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5104 Advanced Mechanical Properties of Materials (3). Advanced treatment of the mechanical behavior of solids; examines crystal plasticity, dislocations, point defects and grain boundaries, creep and fatigue behavior, fracture. Prerequisite: EGM 3311 Analysis of Mechanical Systems (3).

EMA 5106 Thermodynamics and Kinetics of Materials (3). Laws of thermodynamics. Entropy and free energy. Diffusion mechanisms. Transition state theory and field effects. Phase diagrams. Nucleation in condensed phases. Crystal growth. Prerequisite: EGN 3343 Thermodynamics I.

EMA 5140 Introduction to Ceramic Materials (3). Synthesis of ceramics, inorganic glasses and their microstructure as related to physical properties. Prerequisites: EGN 3365 or instructor's permission.

EMA 5295 Principles of Composite Materials (3). The mechanical behavior of composite materials used in the automotive, aircraft and sporting goods industries; material and laminar properties; design of composites; failure analysis; and environmental effects. Prerequisites: EGM 5615 or permission of the instructor.

EMA 5326 Corrosion Science and Engineering (3). Electrochemical principles of corrosion, methods of corrosion control and measurement. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5507C Analytical Techniques of Materials Science (3). Fundamental theories and techniques of the analytical methods for materials including: X-ray diffraction, scanning and transmission electron microscopy, thermal and surface analysis, and vacuum systems. Prerequisite: EGN 3365.

EMA 5605 Fundamentals of Materials Processing (3). Extraction of materials from the minerals using pyro, hydro and electro techniques. Fundamentals of solidification process. Prerequisites: MSE 4521 or permission of the instructor.

EMA 5646 Ceramic Processing (3). Introduction to the science of ceramic processing, with emphasis on theoretical fundamentals and current state-of-the-art processing. Prerequisite: EMA 5140.

EMA 5935 Advanced Topics in Materials Engineering (3). Topics include thermodynamics of solids, principles of physical metallurgy, including phase transformation and diffusion and analytical methods in materials engineering. Prerequisites: EGN 3365 and EGM 3343.

EMA 6113 Advanced Materials Thermodynamics (3). Advanced thermodynamic study of materials using thermochemical and computational methods. Prerequisite: EMA 5106.

EMA 6126 Advanced Physical Metallurgy (3). Energetics of phase transformation and spinodal decomposition, homogeneous and heterogeneous nucleation in solid state reactions, and martensite transformations. Prerequisites: EMA 4121 or permission of the instructor.

EMA 6127C Advanced Physical and Mechanical Metallurgy (3). Advanced topics in physical and mechanical metallurgy including statics and dynamics of dislocations, plastic deformation of fracture, creep solidification, phase transformation, and heat treatment. Prerequisites: EGN 3365 or permission of the instructor.

EMA 6165C Polymer Physics and Analytical Techniques (3). Topics in polymers and the analytical techniques, including: synthesis, characterization, state of polymers, plasma processes, X-ray diffraction, scanning

and transmission electron microscopy. Prerequisites: EGN 3365 or permission of the instructor.

EMA 6185 Advanced Mechanics of Composite Materials (3). Study of micromechanics and mechanical processes in microscale, including fracture, reinforcement and delamination. Prerequisite: EMA 5295.

EMA 6264 Mechanical Properties of Polymers (3). Advanced concepts of solid mechanics and mechanical behavior of polymers; stress-strain relationships, stress transformation, beam bending, elasticity, plasticity and fracture. Prerequisites: EMA 6165C or permission of instructor.

EMA 6449 Electronic Properties of Ceramic Materials (3). The defect solid state and its relation to electrical properties of ceramics. Solid electrolytes. Theory of electron transport in metallic, semiconducting and insulating ceramics. Prerequisite: EMA 5140.

EMA 6516 Crystallography and X-ray Diffraction (3). Principles of crystallography and the use of x-ray diffraction and Raman Spectroscopy to characterize crystalline solids. Prerequisite: Instructor's permission.

EMA 6518 Transmission Electron Microscopy (3). Kinematic and dynamic theories of diffraction contrast and electron interaction in materials. Diffraction analysis for structural and compositional determination. Specimen preparation techniques. Prerequisite: EMA 5507.

EMA 6665 Polymer Processing and Engineering (3). Standard and advanced processing methods, characterization of morphology, and reaction processing. An industry-based case study analysis integrates heat and mass transport, and fluid flow during materials processing; and the economics of materials processing and recycling. Prerequisite: Permission of instructor.

EMC 5415 Digital Control of Mechanical Systems (3). Discrete modeling of mechanical systems. Digital feedback systems. Computer interface of mechanical systems. Controller design with emphasis on hydraulic, pneumatic and electromechanical devices. Prerequisite: EML 4312.

EML 5082 Advanced Nondestructive Testing and Mechanical Health Monitoring (3). Theory and application of Nondestructive Testing (NDT) and Mechanical Health Monitoring (MHM) techniques will be discussed. Automated interpretation of signals and advanced methods will be presented. Prerequisite: Permission of the instructor.

EML 5103 Intermediate Thermodynamics (3). Thermodynamic approach to processes and engines; alternative formulations and Legendre transformations; Maxwell relations, first and second order phase transitions. Prerequisite: EML 3101.

EML 5104 Classical Thermodynamics (3). Mathematical analysis of the laws of classical reversible and irreversible thermodynamics. Applications to mechanical, electromagnetic, and chemical systems, under ideal and real conditions. Prerequisite: EML 3101.

EML 5125 Classical Dynamics (3). Kinematics of rigid body motion, Eulerian angles, Lagrangian equations of motion, inertia tensor, momental ellipsoid. Rigid-body equations of motion, Euler's equations, force-free motion,

polhode and herpolhode, theory of tops and gyroscopes. Variational principles. Hamiltonian equations of motion. Poinsote representation. Prerequisites: MAP 2302 or EGM 3311, and EGN 3321.

EML 5152 Intermediate Heat Transfer (3). Multi-dimensional heat conduction under steady and transient conditions. Heat, mass and momentum transfer. Radiation heat transfer. Gas radiation. Free and forced convection. Prerequisite: EML 4140.

EML 5385 Identification Techniques of Mechanical Systems (3). FFT, time series analysis and neural networks are introduced. Applications of these techniques are discussed for identification of mechanical structures, and machine diagnostics. Prerequisite: EML 4312.

EML 5412 Combustion Processes (3). Introduction to combustion processes, thermochemistry, chemical kinetics, laminar flame propagation, detonations and explosions, flammability and ignition, applications in IC engines and gas turbines. Prerequisites: EML 3101 and EML 4140.

EML 5505 Smart Machine Design and Development (3). Design of independently operating smart electro-mechanical systems (most consumer products) which monitor their environment, give decisions, and create motion. Prerequisites: EML 4312 or consent of instructor.

EML 5509 Mechanical Design Optimization (3). Finite element analysis and sensitivity analysis combined with numerical single objective and multi-objective optimization techniques to optimize the design. Prerequisites: Permission of the instructor.

EML 5519 Fault-Tolerant System Design (3). Fault tolerance in mechanical, manufacturing, computer, and aerospace systems. Basic stages of fault isolation. Fault tolerance measures, architectures, and mechanical system design methodologies. Prerequisite: EML 3500.

EML 5530 Intermediate CAD/CAE (3). Computer aided geometrical modeling of spatial mechanical systems. Design criteria and analytical approaches for planer kinematic systems will be emphasized. Prerequisites: EML 4535 or permission of the instructor.

EML 5555 Special Projects in Mechanical Engineering Design and Business Development (3). Mechanical engineering design project that encompasses conceptual and structural design, analysis, and optimization complemented by a study to develop a business venture to produce the designed product. Prerequisites: EML 4501 or equivalent, QMB 6357C, and MAN 6209.

EML 5562 Advanced Electronic Packaging (3). Advanced topics in electronic packaging. Evaluation of first through fourth level assembly. Applications of computer layout design, thermal management and mechanical stability analysis. Prerequisites: EML 4561 or permission of the instructor.

EML 5599 Heat Pipe Theory and Applications (3). Heat pipe theory, heat pipe design and its applications, especially in the areas of energy conversion and conservation. Prerequisites: EML 3101 and EML 4140.

EML 5606C Advanced Refrigeration and Air Conditioning Systems (3). The various methods used in

the thermal design and analysis of both refrigeration and heat pump systems are investigated. Various methods of producing heating and cooling are examined including vapor compression, absorption, air cycle, steam jet, thermoelectric, solar heating and cooling systems. Prerequisite: EML 4601.

EML 5615C Computer/Aided Design in Air Conditioning (3). Software will be used to demonstrate heating, ventilating and air conditioning design concepts and sizing equipment and determining performance parameters. Project design is required. Prerequisites: EML 2032 and EML 4601.

EML 5708 Advanced Design of Thermal and Fluid Systems (3). Advanced design of pumps, compressors, heat exchangers, HVAC systems and thermal and fluid control devices. Prerequisite: EML 4706.

EML 5709 Intermediate Fluid Mechanics (3). Basic concepts and scope of fluid dynamics; non-inertial reference frames. Two-dimensional potential theory. Applications to airfoils. The Navier-Stokes equations; selected exact and approximate solutions. Prerequisite: EML 3126.

EML 5808 Control Technology for Robotic Systems (3). State-space equations of robots. Controller design based on linearization, nonlinearity cancellation, optimal control, adaptive control and other methods. Stability analysis, performance comparison. Prerequisites: EGN 3321, EML 4312 or equivalent.

EML 5825 Sensors and Applied Machine Intelligence (3). Sensors, signal analysis techniques, and error compensation methods will be introduced for machine intelligence. Production Machine Modeling and Design. Prerequisites: EML 4312 or permission of the instructor.

EML 5927 Professional Development and Leadership for Mechanical Engineers (3). Consequences of engineering and concepts for personal career management, decision making leadership, and entrepreneurship that enhance the effectiveness of professional engineering practice. Prerequisite: Senior standing in engineering.

EML 6148 Microscale Transport Phenomena (3). Transport phenomena in small length and time scales are studied. Deviations from classical behavior are addressed. Applications include heat transfer in electronics, MEMS, and laser machining. Prerequisites: EML 5152, EML 5709, or permission of the instructor.

EML 6153C Advanced Heat Transfer (3). Review of analogies among heat, mass and momentum transfer. Free and forced convection from theoretical and experimental viewpoint for laminar and turbulent flows. Film and dropwise condensation. Prerequisite: EML 5152.

EML 6154 Conduction Heat Transfer (3). Heat transfer by conduction for steady and unsteady one and multidimensional systems with and without heat generation. Temperature distribution analysis using analytical and computational methods. Prerequisite: EML 4140.

EML 6155 Convection Heat Transfer (3). Development and solution of governing equations of parallel flows,

boundary layer flows, instability and turbulence with convective heat transfer. Prerequisite: EML 4140.

EML 6157 Radiation Heat Transfer (3). Heat transfer by radiation for steady and unsteady one and multi-dimensional systems. Radiation parameters effecting different systems will be studied, analytically or numerically. Prerequisite: EML 4140.

EML 6223 Advanced Mechanical Vibration Analysis (3). Multi degree-of-freedom systems, discrete and continuous systems; vibration control and introduction to vibration of non-linear systems. Prerequisite: EML 4220.

EML 6233 Fatigue and Failure Analysis (3). A study of the theoretical and practical aspects of material failure including failure modes, life prediction, corrosion with the goal of designing a safe product. Prerequisite: EGM 5615.

EML 6518 Advanced Modeling in Mechanical Engineering (3). Basic principles of mathematical modeling following a variety of problems in mechanical engineering. Prerequisites: EGM 6422 and EGM 5615.

EML 6532 Advanced Computer-Aided Design/Computer-Aided Engineering (3). Advanced CAD techniques in design of mechanical systems. Architecture of CAD systems including database applications. Advanced computational geometry student programming. Prerequisite: EML 5530.

EML 6574 Advanced Mechanical Design Optimization (3). Advanced topics in numerical optimization, sensitivity analysis, approximation techniques and shape optimization. Prerequisite: EML 5509.

EML 6712C Advanced Fluid Mechanics I (3). Turbulent flows with emphasis on engineering methods. Momentum, energy, and species transfer. Production, dissipation, and scaling laws for turbulence. Mixing length, effective viscosity. Prerequisite: EML 5709.

EML 6714 Advanced Gas Dynamics (3). Thermodynamic and fluid mechanics principles applied to high speed flows. Flows to be studied include flows with friction and heat loss/addition. Prerequisite: EML 4711.

EML 6725 Computational Fluid Dynamics (3). Basic computational methods for incompressible and compressible flows. Methods for solving the stream function equation. Boundary conditions for vorticity and stream function equations. Finite difference and finite element techniques. Prerequisites: CGS 2420, EML 6712.

EML 6747 Mechanics of Fluid Flow in Porous Materials (3). The mathematical theory of fluid penetration through porous materials and lungs, heat transfer, fluidized beds, non-stationary flows, and double continua. Prerequisite: EML 5709.

EML 6750 Multiphase Suspension Flow (3). Definition of multiphase flow, experimental observation, mathematical modeling of multiphase systems, measurement techniques, suspension boundary layer flow, and fluidization techniques. Prerequisite: Permission of the instructor.

EML 6805 Advanced Design of Robots (3). Kinematic analysis of mechanisms and robot arms, geometric configurations, analytical and numerical methods in

kinematics. Prerequisites: EML 3222, EML 3262, and EML 4501.

EML 6908 Independent Studies (1-3). Individual research studies available for qualified graduate students. The work is to be performed under the supervision of an advisor. A report is to be submitted. Students may register for 1 to 3 credits per semester. Prerequisite: Advisor's permission.

EML 6910 Supervised Research (1-6). Graduate level research carried out under the supervision of a faculty member.

EML 6935 Graduate Seminar (0). Different problems in Mechanical Engineering and results of ongoing research will be presented and discussed by invited experts. The seminar will expose the students to advances in existing and emerging areas of research. Prerequisite: Graduate standing.

EML 6946 Mechanical and Materials Engineering Internship (1). Graduate students gain work experience through supervised internship in industry. The student prepares an internship program proposal, and the work performed is documented in a report and presented. Prerequisite: Permission of the student's thesis advisor.

EML 6971 Masters Thesis (1-6). Masters thesis in any advanced topic, a report is to be submitted and an oral presentation is to be made. Students may register for one to six credits per semester. Total of six credits to be earned for the Master's Degree. Prerequisite: Advisor's permission.

EML 7728 Mechanics of Vortex and Separated Flows (3). Prediction of drag and lift forces acting upon a body moving in fluid or gas for large Reynolds' numbers using numerical experiments with vortex and/or separated flows. Prerequisites: EML 6712, EGM 6422, and EML 6714.

EML 7837 Boundary Value Problems in Engineering (3). Analytical methods and skills for closed-form solutions of boundary value problem of mathematical physics and mechanics for engineering applications based on Riemann theory. Prerequisites: MAP 5407, MAA 4402, or permission of the instructor.

EML 7939 Ph.D. Seminar (0). Various subjects in Mechanical Engineering and results of ongoing research will be presented and discussed by invited experts. The seminar will expose the students to advances in existing and emerging areas of research. Prerequisite: Ph.D. students only.

EML 7979 Dissertation (3-12). Doctoral research leading to Ph.D. Mechanical Engineering dissertation. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

School of Computing and Information Sciences

Yi Deng, *Professor and Dean*

Masoud Milani, *Associate Professor and Associate Dean*

Walid Akache, *Instructor*

David Barton, *Professor*

Toby S. Berk, *Professor Emeritus*

Shu-Ching Chen, *Associate Professor*

Peter Clarke, *Assistant Professor*

Timothy Downey, *Instructor*

Xudong He, *Professor*

Vagelis Hristidis, *Assistant Professor*

Kip Irvine, *Instructor*

Sam Khalil, *Visiting Instructor*

Bill Kraynek, *Professor Emeritus*

Tao Li, *Assistant Professor*

Christine Lisetti, *Associate Professor*

Xiaowen Liu, *Assistant Professor*

Patricia McDermott-Wells, *Visiting Instructor*

Sylvia Barrera, *Visiting Instructor*

Giri Narasimhan, *Professor*

Jainendra K. Navlakha, *Professor and Associate Dean of Graduate Studies, College of Engineering and Computing*

Ana Pasztor, *Professor*

Alexander Pelin, *Associate Professor*

Norman Pestaina, *Instructor*

Nagarajan Prabakar, *Associate Professor*

Raju Rangaswami, *Assistant Professor*

Naphtali Rishe, *Professor*

S. Masoud Sadjadi, *Assistant Professor*

Greg Shaw, *Instructor*

Geoffrey Smith, *Associate Professor*

Joslyn Smith, *Instructor*

Jill Weiss, *Instructor*

Mark A. Weiss, *Professor*

The School of Computing and Information Sciences offers both a Master of Science degree and a Doctor of Philosophy degree. The Master of Science degree provides study in state-of-the-art computer applications as well as an introduction to the theoretical foundations of computer science. The Doctor of Philosophy in Computer Science is designed to provide study in all major areas of computer science while leading to the frontiers of knowledge in a chosen field of concentration.

Master of Science in Computer Science

Admission

The following are in addition to the University's graduate admission requirements.

1. A Bachelor's Degree or equivalent in Computer Science from a regionally accredited institution. A degree in a related field is acceptable if the applicant shows evidence of computer science background suitable for entry into the master's program as judged by the Graduate Committee.

2. 'B' average or better in all course work attempted while registered as an upper-division student in the Bachelor's program, and a GRE general test score of 1000 (verbal and quantitative combined), with a minimum quantitative score of 600.

3. Three letters of recommendation from persons in a position to judge the applicant's potential success in graduate study.

4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

5. Approval of the Graduate Committee.

Required Courses

1. Required coursework: 15 credits

CEN 5011	Software Engineering	3
COP 5725	Principles of Database Management Systems	3
COP 5614	Operating Systems	3
COT 5420	Theory of Computation I	3
COT 5407	Introduction to Algorithms	3

Required courses must be completed with an average of "B" or higher, and only one course may receive a grade less than "B-".

2. Elective coursework:

- a. non-thesis option: 15 credits of elective courses
- b. thesis option: 9 credits of elective courses and 6 credits of master's thesis

Elective courses can be selected from SCIS Graduate Course Offerings

Thesis Option

CIS 6790	Thesis	6
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After completion of the other required courses, the student must conduct a research thesis. The topic must first be approved by the faculty member who will supervise the research and then by the Thesis Committee. The thesis will be accepted only after being read and approved by a Thesis Committee. An oral defense is required before the Thesis Committee.

Accelerated Master of Science in Computer Science

Admission Requirements

1. Current enrollment in the Bachelor's Degree program in Computer Science at FIU.
2. Completed at least 90 credits of coursework.
3. Current GPA must be 3.3 or higher.
4. GRE general test score of 1000 (verbal and quantitative combined), with a minimum quantitative score of 600.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
6. Three letters of recommendation.
7. Approval of the Graduate Committee.

General Requirements

The FIU Bachelor's degree in Computer Science must be awarded before the Master's degree.

Coursework:**Required Courses:**

Required courses must be completed with an average of "B" or higher, and only one course may receive a grade less than "B-".

CEN 5011	Software Engineering	3
COP 5725	Principles of Database Management Systems	3
COP 5614	Operating Systems	3
COT 5420	Theory of Computation I	3
COT 5407	Introduction to Algorithms	3

Elective:

5 courses selected from the SCIS Graduate Course Offerings.

Overlap:

Up to 4 courses (12 credits) may be used in satisfying both the Bachelor's and Master's degree requirements. All overlapping courses must be approved by both graduate and undergraduate program directors before students are enrolled in such courses.

The courses must be regular 5000-level computer science graduate courses intended for graduate majors.

Doctor of Philosophy in Computer Science

The following are in addition to the University's graduate admission requirements:

1. A baccalaureate or master's degree in Computer Science, or equivalent degree in a related field as judged by the School's Graduate Committee.

2. A minimum of a 'B' average on all upper division work and acceptable courses in Calculus and Statistics.

3. GRE (general test), score of 1120 (verbal and quantitative combined), with a minimum quantitative score of 650. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. GRE must have been taken within the past five years and TOEFL within the past two years.

4. Three letters of recommendation from persons in a position to judge the applicant's potential for advanced graduate study in computer science.

5. Approval of the School of Computing and Information Sciences Graduate Committee.

Required Courses

All students must complete the following courses and receive a grade of 'B' or higher in each.

CEN 5011	Advanced Software Engineering*	3
COP 5621	Compiler Construction	3
COP 5614	Operating Systems*	3
COP 5725	Principles of Database Management Systems*	3
COT 5420	Theory of Computation I*	3
COT 5407	Introduction to Algorithms*	3

*may be substituted with corresponding 6000-level advanced course with approval of graduate advisor.

Other Requirements

1. The student must pass at least six elective courses, for a total of 36 semester credit hours of course work. In addition, the student must earn at least 24 dissertation credit hours, and 2 credit hours of a seminar course. In

total, 75 credits beyond the bachelor's degree are required.

2. The student must pass the Candidacy Examination, which is an oral examination of the student's knowledge in a broad research area.

3. The student must pass the Preliminary Examination, which is an oral examination of his or her dissertation proposal.

4. The student must write a dissertation on his or her research and successfully defend it orally in the Dissertation Defense.

5. The student must spend at least one academic year in full-time residence. Normally, this will be after passing the Candidacy Examination.

For additional information and for specific rules and regulations relating to the graduate program, please refer to the web site,

(<http://www.cis.fiu.edu/grad>) or write to:

Graduate Program Director
School of Computing and Information Sciences
Florida International University
University Park Campus
Miami, Florida 33199

Course Descriptions**Definition of Prefixes**

CAP-Computer Applications; CDA-Computer Design/Architecture; CIS-Computer Information Systems; CGS-Computer General Studies; COC-Computer Concepts; COP-Computer Programming; COT-Computing Theory;

CAP 5510C Introduction to Bioinformatics (3). Introduction to bioinformatics; algorithmic, analytical and predictive tools and techniques; programming and visualization tools; machine learning; pattern discovery; analysis if sequence alignments, phylogeny data, gene expression data, and protein structure. Prerequisites: COP 3530, or equivalent and STA 3033 or equivalent.

CAP 5602 Introduction to Artificial Intelligence (3). Presents the basic concepts of AI and their applications to game playing, problem solving, automated reasoning, natural language processing and expert systems. Prerequisite: COP 3530.

CAP 5610 Introduction to Machine Learning (3). Decision trees, Bayesian learning reinforcement learning as well as theoretical concepts such as inductive bias, the PAC learning, minimum description length principle. Prerequisite: Graduate standing.

CAP 6776 Advanced Topics in Information Retrieval (3). Information Retrieval (IR) principles including indexing and searching document collections, as well as advanced IR topics such as Web search and IR-style search in databases. Prerequisite: COP 5725.

CAP 6778 Advanced Topics in Data Mining (3). Web, stream data, and relational data mining, graph mining, spatiotemporal data mining, privacy-preserving data mining, high-dimensional data clustering, social network, and linkage analysis. Prerequisite: COP 5577 or permission of the instructor.

CDA 6939 Special Topics: Advanced Topics in Computer Architecture (3). This course deals with

selected special topics in computer architecture.
Prerequisite: Permission of the instructor.

CEN 5011 Software Engineering (3). This course deals with the design of large scale computer programs. Included are topics dealing with planning design, implementation, validation, metrics, and the management of such software projects. Prerequisite: CEN 4010.

CEN 5064 Software Design (3). Study of object-oriented analysis and design of software systems based on the standard design language UML; case studies. Prerequisite: CEN 5011.

CEN 5076 Software Testing (3). Tools and techniques to validate software process artifacts: model validation, software metrics, implementation-based testing, specification-based testing, integration and systems testing. Prerequisites: CEN 4010 or CEN 5011.

CEN 5120 Expert Systems (3). Introduction to expert systems, knowledge representation techniques and construction of expert systems. A project such as the implementation of an expert system in a high level AI-language is required. Prerequisites: COP 3530 or permission of the instructor.

CEN 6070 Software Verification (3). Study of formal verification of software systems; verification methods; verification of sequential and concurrent software systems. Prerequisite: CEN 5011.

CEN 6075 Software Specification (3). Study of formal specification in the software development process; specification methods; specification of sequential and concurrent systems. Prerequisite: CEN 5011.

CGS 5166 Introduction to Bioinformatics Tools (2). Introduction to bioinformatics; analytical and predictive tools; practical use of tools for sequence alignments, phylogeny, visualizations, pattern discovery, gene expression analysis, and protein structure. Prerequisites: PCB 6025 or equivalent.

CGS 6834 Programming for the Web (3). Installation and maintenance of servers. Techniques for building secure multimedia interactive web pages. A hands-on project to develop an educational interactive multimedia web site is required. This course is not an elective for Computer Science programs.

CIS 5027 Computer Systems Fundamentals (3). Fundamentals concepts of IT Systems: operating systems, networking, distributed systems, platform technologies, web services and human-computer interaction. Covers design principles, algorithms and implementation techniques. Prerequisite: Graduate standing.

CIS 5346 Storage Systems (3). Introduction to storage systems, storage system components, storage architecture, devices, trends and applications, performance, RAID, MEMS and portable storage, file-systems, OS storage management. Prerequisite: Graduate standing.

CIS 5372 Information Assurance (3). Information assurance algorithms and techniques. Security vulnerabilities. Symmetric and public key encryption. Authentication and Kerberos. Key infrastructure and certificate. Mathematical foundations. Prerequisite: Graduate standing.

CIS 5900 Independent Study (1-10). Individual conferences, assigned readings, and reports on independent investigations. Prerequisite: Permission of the department.

CIS 5910 Project Research (1-6). Advanced undergraduate or master's level research for particular projects. Repeatable. Prerequisite: Permission of the department.

CIS 5931 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 6612 Special Topics: Advanced Topics in Software Engineering (3). This course deals with selected topics in software engineering. Prerequisite: Permission of the instructor.

CIS 6900 Independent Study (1-10). Individual conferences, assigned readings, and reports on independent investigations. Prerequisite: Permission of the department.

CIS 6931 Special Topics: Advanced Topics in Information Processing (3). This course deals with selected special topics in information processing. Prerequisite: Permission of the instructor.

CIS 6933 Computer Science Seminar (1). Regularly scheduled seminar series featuring speakers on computer science related topics. Prerequisite: Graduate standing.

CIS 6970 Thesis (1-10). Prerequisite: Completion of all other requirements for the M.S. Degree in Computer Science.

CIS 7910 Graduate Research (1-25). Doctoral research prior to candidacy. Repeatable. Prerequisite: Permission of the department.

CIS 7980 Ph.D. Dissertation (1-10). Prerequisite: Permission of the Major Professor and Doctoral Candidacy.

CNT 6207 Distributed Processing (3). Study of distributed processing using networking and distributed computing techniques. Investigation of distributed algorithms and models of distributed computing. Prerequisite: Graduate Standing.

CNT 6208 Advanced Topics in Concurrent and Distributed Systems (3). Study of the major aspects of concurrent and distributed systems. Topics include foundations of concurrent computation, languages and tools for concurrent systems, distributed real-time systems, distributed multimedia systems, and concurrent object-oriented systems.

COP 5577 Principles of Data Mining (3). Introduction to data mining concepts, knowledge representation, inferring rules, statistical modeling, decision trees, association rules, classification rules, clustering, predictive models, and instance-based learning. Prerequisites: COP 4540 and STA 3033.

COP 5614 Operating Systems (3). Operating systems design principles, algorithms and implementation techniques: process and memory management, disk and I/O systems, communications and security.

COP 5621 Compiler Construction (3). Basic techniques of compilation; scanning; grammars and LL and LR parsing, code generation; symbol table management; optimization. Prerequisites: MAD 3512 and CEN 4010.

COP 5716 Software and Data Modeling (3). Essential software and data modeling methods and techniques such as UML, XML, and ER. Prerequisite: Graduate standing.

COP 5725 Principles of Database Management Systems (3). Overview of Database Systems, Relational Model, Relational Algebra and Relational Calculus; SQL; Database Applications; Storage and Indexing; Query Evaluation; Transaction Management. Selected database topics will also be discussed.

COP 5949 Cooperative Education in Computer Science (1-3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervision evaluation is required of each student.

COP 6007 Computer Programming Concepts (3). For non-computer science graduate students. Concepts of object oriented programming, introduction to an object oriented programming language; internet programming; applications of programming to learning technologies. Prerequisite: Permission of the instructor.

COP 6556 Semantics of Programming Languages (3). This course provides an overview of systematic and effective approaches to programming. Abstraction; formal specification techniques; program verification and; semantics of programming languages. Prerequisite: COT 5420.

COP 6611 Advanced Operating Systems (3). Advanced topics in operating system design; microkernel; memory architecture; multi-processor issues; multimedia operating systems; case studies. Prerequisite: Graduate standing.

COP 6727 Advanced Database Systems (3). Design, architecture and implementation aspects of DBMS, distributed databases, and advanced aspects of databases selected by the instructor. Prerequisite: Graduate standing.

COP 6795 Special Topics on Databases (3). Study of selected advanced topics in databases and related areas. Prerequisite: Permission of the instructor.

COT 5407 Introduction to Algorithms (3). Design of efficient data structures and algorithms; analysis of algorithms and asymptotic time complexity; graph, string, and geometric algorithms; NP-completeness.

COT 5420 Theory of Computation I (3). Abstract models of computation; including finite automata, regular expressions, context-free grammars, pushdown automata, Turing machines. Decidability and undecidability of computational problems. Prerequisite: MAD 3512.

COT 6405 Analysis of Algorithms (3). Design of advanced data structures and algorithms; advanced analysis techniques; lower bound proofs; advanced algorithms for graph, string, geometric, and numerical problems; approximation algorithms; randomized and on-line algorithms. Prerequisite: Graduate standing.

COT 6421 Theory of Computation II (3). Verification of program correctness; program schemes; fixed-point theory

of programs; resolution and theorem proving. Prerequisite: COT 5420.

COT 6930 Special Topics: Advanced Topics in Theory (3). This course deals with selected special topics in computing theory. Prerequisite: Permission of the instructor.

COT 6931 Topics in Cognitive Science (3). A "top-down" view of Computer Science, in particular artificial intelligence, by studying the computational aspects of human cognition. Prerequisite: Permission of the instructor.

COT 6936 Topics in Algorithms (3). Advanced data structures, pattern matching algorithms, file compression, cryptography, computational geometry, numerical algorithms, combinational optimization algorithms and additional topics. Prerequisite: COP 3530.

College of Engineering and Computing

Interim Dean **Amir Mirmiran**
 Dean, School of Computing and Information Sciences **Yi Deng**
 Associate Dean for Academic Affairs **Cesar Levy**
 Associate Dean for Graduate Studies **Jainendra Navlakha**
 Associate Dean, School of Computing and Information Sciences **Masoud Milani**
 Director, Division of Corporate and Global Programs **Jainendra Navlakha**
 Acting Chairperson, Biomedical Engineering **Anthony McGoron**
 Acting Chairperson, Civil and Environmental Engineering **Fang Zhao**
 Chairperson, Construction Management **Irtishad U. Ahmad**
 Chairperson, Electrical and Computer Engineering **Kang Yen**
 Chairperson, Industrial and Systems Engineering **Shih-Ming Lee**
 Chairperson, Mechanical and Materials Engineering **George Dulikravich**
 Director, Advanced Materials Engineering Research Institute **W. Kinzy Jones**
 Director, Applied Research Center **Fernando Miralles-Wilhelm**
 Director, Bioinformatics Research Group **Giri Narashimhan**
 Director, Center for Advanced Distributed Systems Engineering **Xudong He**
 Director, Center for Advanced Technology and Education **Malek Adjouadi**
 Director, Center for Diversity in Engineering and Computing **Gustavo Roig**
 Director, Center for Emerging Technology For Advanced Information Processing and High-Confidence Systems **Yi Deng**
 Director, Center for the Study of Matters at Extreme Conditions **Surendra Saxena**
 Director, Distributed Multimedia Information Systems Laboratory **Shu-Ching Chen**
 Director, Engineering Information Center **Hernan Bormey**
 Director, Engineering Manufacturing Center **Shih-Ming Lee**
 Director, Florida Engineering Education Delivery System **Mercy Rueda Schott**
 Director, Future Aerospace Science and Technology Center for Cryoelectronics **Grover Larkins**
 Director, High Performance Database Research Center **Naphtali Rishe**
 Director, International Hurricane Research Center **Stephen Leatherman**
 Director, Lehman Center for Transportation Research **L. David Shen**
 Director, Telecommunications and Information Technology Institute **Niki Pissinou**
 Director, Space Planning **Eugene Farmer**

Faculty

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Arellano, Wilmer (Universidad Simon Bolivar), Visiting Instructor, Electrical and Computer Engineering
Ayala, Melvin, Ph.D. (Zittau Engineering Institute), Adjunct Professor, Electrical and Computer Engineering
Babij, Tadeusz, Ph.D. (Technical University, Wroclaw, Poland), Professor, Electrical and Computer Engineering
Baier, Ronald, A., M.S., P.E. (University of Florida), Instructor and Undergraduate Advisor, Construction Management
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Caballero, Amaury A., Ph.D., P.E. (Energy Institute of Moscow), Lecturer and Undergraduate Program Advisor, Electrical and Computer Engineering
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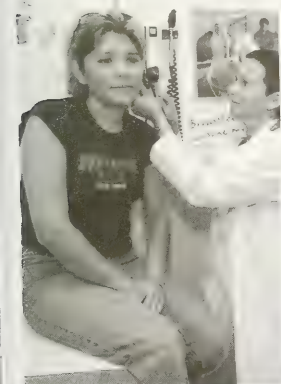
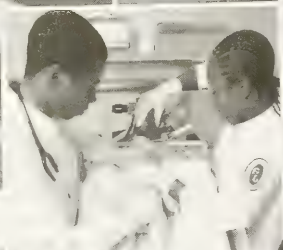
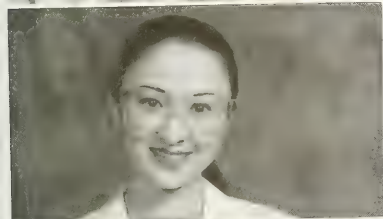
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- Centeno, Martha A., Ph.D.** (Texas A&M University), Associate Professor, and Undergraduate Program Director, Industrial and Systems Engineering; Director, Applied Research in Industrial and Systems Engineering
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- Wunnava, Subbarao V., Ph.D., P.E.** (*Andhra University*), Professor, Electrical and Computer Engineering
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- Zhao, Fang, Ph.D., P.E.** (*Carnegie Mellon University*), Acting Chair, Professor and Graduate Program Director, Civil and Environmental Engineering, Deputy Director, Lehman Center for Transportation Research
- Zhu, Hao, Ph.D.** (*Pennsylvania State University*), Assistant Professor, Electrical and Computer Engineering
- Zhu, Yimin, Ph.D., CCE** (*University of Florida*), Assistant Professor, Construction Management



FLORIDA INTERNATIONAL UNIVERSITY



COLLEGE OF
**NURSING AND
HEALTH
SCIENCES**

College of Nursing and Health Sciences

Dean **Divina Grossman**
 Associate Dean, Academic Affairs **Sharon Pontious**
 Associate Dean, Administrative Affairs **Helen Z. Cornely**
 Assistant Dean, Student Services **Marguerite Cooke-William**

Chairs, and Directors:

Athletic Training **Jennifer Doherty-Restrepo**
 Communications Sciences and Disorders **Noma Anderson**
 Health Information Management (Interim) **Josephine Gordon**
 Health Sciences **Carol DeLong Pyles**
 Nursing, Graduate (Interim) **Sharon Pontious**
 Nursing, Undergraduate **Margaret Hamilton**
 Nursing, Biscayne Bay Campus **Paula Delpech**
 Occupational Therapy **Alma Abdel-Moty**
 Physical Therapy **Leonard Elbaum**

The College of Nursing and Health Sciences was created in 2006 by the merger of the School of Nursing and the School of Health Sciences. In support of the University's mission as a major urban research institution, the College offers programs of professional study in selected health professions.

The College offers baccalaureate degrees in Health Sciences, Nursing, and Health Information Management. A moratorium has been placed on admissions to Health Information Management for the 2008-2009 academic year. Master's degrees are offered in Athletic Training, Occupational Therapy, Speech Language Pathology, and Nursing. The Doctor of Philosophy is offered in Nursing and the Doctor of Physical Therapy is offered in Physical Therapy.

Students interested in the academic programs offered by the College of Nursing and Health Sciences are urged to contact the academic unit for guidance on admissions requirements, curriculum and career planning.

College Policies

Background checks and drug screenings

The practicum/field placement sites used by some of the programs in the College of Nursing and Health Sciences require the disclosure of conviction records for misdemeanors and/or felonies and current screening for drug use. Therefore, students are often required to submit to criminal background checks and drug screening tests prior to the initiation of the clinical education portion of their education. The student will be responsible for the financial cost of such screenings.

Findings in background checks and/or drug screening tests may affect a student's ability to participate in clinical experiences and complete the program, and/or obtain licensure or certification.

Standard disclaimer on policy/procedure

Changes

The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's and College's various publics and to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, and other regulatory and accrediting agencies.

Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations. Please refer to the College's website for the most recent information regarding program requirements, policies, and procedures.

Changes to the Curriculum Requirements

The curricula described in this catalog are continually subject to review in order to respond to the mandates of the Florida Department of Education, Board of Governors, and the Legislature. This is especially true for the programs that are subject to national accreditation requirements. University policy changes in curriculum may be made without advance notice.

Generally, the College of Nursing and Health Sciences makes every effort to minimize the impact of curriculum changes on currently enrolled students by stipulating that students complete the requirements of their degree program in effect at the time of admission or readmission to the program. In the event that this is not possible due to accreditation standards or the deletion of courses, students may be required to complete alternative degree requirements in order to graduate. Students should review their file to ensure that all documentation of changes is noted.

Athletic Training

Jennifer Doherty-Restrepo, MS, ATC, LAT, CIE,

Assistant Clinical Professor and Director

Brady Tripp, Ph.D., ATC, LAT, CIE, Assistant Professor

**Michelle Odoi, MS, ATC, LAT, CSCS, CIE, Visiting
Clinical Assistant Professor**

Master of Science in Athletic Training

Entry-Level Education Major OR Post-Professional Education Major

The Master of Science in Athletic Training degree program is a comprehensive Graduate Athletic Training Education Program (GATEP) with Entry-Level and Post-Professional Education majors. The Entry-Level education major includes two options (Option A and Option B). The Master of Science in Athletic Training Entry-Level education major is accredited by the Commission on the Accreditation of Athletic Training Education (CAATE) and prepares students for the Board of Certification (BOC) examination. In addition, students have the opportunity to prepare for the Certified Strength and Conditioning Specialist (CSCS) examination. The Post-Professional education major (Option C) is designed to inculcate the student with the conceptual and theoretical basis for athletic training principles and techniques through the experimental process. This major offers advanced study in various areas of athletic training and provides opportunity for specialization and field experience.

Option A - Accelerated Bachelor of Science/Entry-Level Master of Science (5 years total, 144 credits):

This option is for entering freshman, transfer students, or students who change majors in his/her undergraduate degree. *Option A* is for undergraduate students who have been admitted into the College of Nursing and Health Sciences and the BS in Health Sciences program with the Pre Athletic Training Track. Following admission into the University Graduate School (upon completion of 90 credits toward the BS degree, during the first semester of the fourth year of study), students are admitted into the MS in Athletic Training program with the Entry-Level education major. *Option A* is a professional education program with the first two years of full-time study consisting of general education and prerequisite courses followed by three years of full-time study in the "Pre-Professional" and "Professional" phases. Students pursuing *Option A* will receive a Bachelor of Science in Health Sciences degree with a Pre Athletic Training Track (upon completion of 120 credits) and a Master of Science in Athletic Training degree (upon completion of 24 additional credits). Upon completion of 120 credits, students may choose to discontinue study and obtain only the BS in Health Sciences degree with a Pre Athletic Training Track. However, these students will NOT be eligible for the BOC examination. To be eligible for the BOC examination, students must complete the MS in Athletic Training degree with the Entry-Level education major, which is accredited by the Commission on the Accreditation of Athletic Training Education (CAATE).

Option A Admission Requirements: These students must have completed:

1. Admission to the College of Nursing and Health Sciences with the Pre-Athletic Training Track.
 - a. Must have a 3.2 (on a 4.0 scale) cumulative GPA

- b. Must complete the Entry-Level prerequisite courses and earn a grade of "C" or better in the following:

- i. BSC 2023 Human Biology (or BSC 1010 General Biology)
- ii. CHM 1045 General Chemistry
- iii. PET 3325 Anatomy
- iv. PET 3353 Physiology

2. Admission to the Entry-Level GATEP through the competitive-entry process. Refer to Policy and Procedure Manual available on-line at <http://cnhs.fiu.edu/at> for detailed information regarding program requirements.
3. Admission to the University Graduate School (upon completion of 90 credits toward the BS degree, during the first semester of the fourth year of study) and the MS in Athletic Training program with the Entry-Level education major.
 - a. Apply online at the University Graduate School website: <http://gradschool.fiu.edu>
 - b. Must have a 3.2 (on a 4.0 scale) GPA on both overall and upper division courses
 - c. No GRE required

Option B - Entry-Level Master of Science (3 years total, 84 credits): This option is for students who have completed their Bachelor degree and the Florida SUS required Athletic Training Pre-requisites. *Option B* is intended for college graduates who have been admitted into the University Graduate School and the MS in Athletic Training program with the Entry-Level education major. *Option B* is a professional education program consisting of three years of full-time study in the "Pre- Professional" and "Professional" phases. Students pursuing *Option B* will receive a Master of Science in Athletic Training degree.

Option B Admission Requirements: These students must have completed:

1. Admission to the University Graduate School and the MS in Athletic Training program with the Entry-Level education major.
 - a. Apply online at the University Graduate School website: <http://gradschool.fiu.edu>
 - b. Must have a 3.2 (on a 4.0 scale) GPA on overall and upper division courses
 - c. No GRE required
2. Admission to the Entry-Level GATEP through the competitive-entry process. Refer to Policy and Procedure Manual available on-line at <http://cnhs.fiu.edu/at> for detailed information regarding program requirements.

Option C - Post Professional Master of Science (2 years total, 36 credits):

This option is for students who have completed their Bachelor degree in Athletic Training or closely related field and are BOC Certified Athletic Trainers or eligible for certification. *Option C* is a post-professional advanced education program intended for Certified Athletic Trainers who have been admitted into the MS in Athletic Training program with the Post-Professional education major. *Option C* consists of a two-year program of full-time study consisting of the "Advanced Practitioner Core", "Research, Inquiry, and Analysis", and "Athletic Training Residency" phases. Students pursuing *Option C* will receive a Master of Science in Athletic Training degree.

Option C Admission Requirements: These students must have completed:

- Admission to the University Graduate School and the MS in Athletic Training program with the Post-Professional education major.
 - Hold a bachelor's degree from an accredited college or university
 - Must have a 3.0 (on a 4.0 scale) GPA on upper division courses
 - No GRE required
- Admission to the Post-Professional GATEP through the competitive-entry process.
 - Be certified or certification eligible for the Board of Certification (BOC) Examination, or other professional qualification, as approved by the program director
 - Submit an application to the Post-Professional Athletic Training Selection Committee. The application shall include:
 - Resume or curriculum vita, with cover letter
 - Scholarly writing sample
 - Three letters of recommendation
 - Interview (personal or telephonic)

Master of Science in Athletic Training

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2023/BSC 2023L	BSC X020
PHY 2053/PHY 2048L	PHY X053/PHY X053L or PHY X053C
HUN 2201	HUN X201
CHM 1045/CHM 1045L	CHM X045
STA 2122	STA X014
PSY 2020	PSY X012

Courses which form part of the statewide articulation between the State University System and the Community College System, will fulfill the Lower Division Common Prerequisites

Entry-Level Education Major

Required Prerequisites (30 credits)

Students must complete the following prerequisites with a cumulative 3.2 GPA for admission:

~BSC 2023/L*	Human Biology with Lab	4
~PET 3325/L*	Anatomy for Exercise and Sport Sciences with Lab	4
PHY 2053/L*	Physics without Calculus with Lab	5
HUN 2201*	Introduction to Nutrition	4
~CHM 1045/L*	General Chemistry with Lab	4
~PET 3353/L*	Physiology for Exercise and Sport Sciences with Lab	4
STA 2122*	Introduction to Statistics	3
PSY 2020*	Introductory Psychology	3
~Must earn a grade of "C" or better		

*Course meets Florida Center for Advising and Academic Support – Common Prerequisites for Athletic Training

Option A – Accelerated Bachelor of Science/Entry-Level Master of Science (5 years total, 144 credits);

General Education Requirements: 30 UG credits

Prerequisite Classes: 30 UG credits, students must complete the prerequisites and have a cumulative 3.2 GPA for admission (see above)

Pre-Professional and Professional Phases (84 credits):
Must maintain a cumulative 3.0 GPA

Option B – Entry-Level Master of Science (3 years total, 84 credits):

Students must complete the prerequisites and have a cumulative 3.2 GPA for admission (see above)
Pre-Professional and Professional Phases (84 credits):
Must maintain a cumulative 3.2 GPA

Entry-Level Professional Education Major Program of Study (Courses must be taken in prescribed sequence)

Pre-Professional Phase: 13 UG credits

Year I (Option B) or III (Option A)

Fall Semester

PET 4520	Introduction to Clinical Education in Athletic Training	1
HSC 4406	Management of Medical Emergencies	2
PET 4639C	Acute Care and Injury Prevention with Lab	4
PET 4148	Medical Documentation and Pharmacology	3
PET 3310	Kinesiology	3
Required Clinical Experience: 30 hours		

Professional Phase: 14 UG and 57 G credits

Spring Semester

PET 4643C	Orthopedic Assessment I – Lower Extremity with Lab	4
PET 4642C	Therapeutic Modalities with Lab	4
PET 4672L	Clinical Education	3
PET 3351	Exercise Physiology	3
Required Clinical Experience: 160 hours		

Year II (Option B) or IV (Option A)

Fall Semester

PET 5312C	Orthopedic Assessment II – Upper Extremity with Lab	4
APK 6118C	Rehabilitation Techniques in Athletic Training with Lab	4
PET 5678	Clinical Education II	3
Approved Elective at 5000 level		3
Approved Elective at 5000 level		3
Required Clinical Experience: 160 hours		

Spring Semester

PET 5609	Orthopedic Assessment III – Head, Spine, and Trunk with Lab	4
PET 5624	Intervention and Referral for the Physically Active	3
PET 5672L	Clinical Education III	3
PET 5608	Diseases and Disabilities in the Physically Active	3
PET 5625	Sports Medicine	3
Required Clinical Experience: 160 hours		

Year III (Option B) or V (Option A)

Fall Semester

PET 5673L	Clinical Education IV	3
PET 5405	Administration and Professionalism in Athletic Training	3
PET 5355	Advanced Exercise Physiology	3
EDF 5481	Foundations of Educational Research	3
Required Clinical Experience: 160 hours		

Spring Semester

PET 6675	Clinical Education V	3
PET 6558	Human Performance in Extreme Environments	3

PET 6535	Masters of Science Research in Athletic Training	3
PET 6312	Advanced Orthopedic and Biomechanical Assessment of the Upper Extremity	3
Required Clinical Experience: 160 hours		

Post-Professional Education Major Program of Study

Year I (18 G Credits)

Fall Semester

ZOO 5371C/L	Clinical Anatomy of the Back and Limbs Lecture and Lab	4
EDF 5481	Foundations of Educational Research	3
PET 6535	Masters of Science Research in Athletic Training	1
PET 6526C	Advanced Field Experience in Athletic Training	1-9

Spring Semester

PET 6558	Human Performance in Extreme Environments (<i>Alternate Spring</i>)	3
PET 6597	Survey of Research	3
PET 6535	Masters of Science Research in Athletic Training	1
PET 6525C	Athletic Training Residency	1-9
PET 6526C	Advanced Field Experience in Athletic Training	1-9

Year II (18 G Credits)

Fall Semester

Approved Elective		3
Approved Elective		3
PET 6535	Masters of Science Research in Athletic Training	1
PET 6525C	Athletic Training Residency	1-9
PET 6526C	Advanced Field Experience in Athletic Training	1-9

Spring Semester

PET 5625	Sports Medicine (<i>Alternate Spring</i>)	3
PET 6312	Advanced Orthopedic and Biomechanical Assessment of the Upper Extremity	3
PET 6535	Masters of Science Research in Athletic Training	1
PET 6525C	Athletic Training Residency	1-9
PET 6526C	Athletic Field Experience in Athletic Training	1-9

Graduation Requirements

Option A Graduation Requirements:

The student must complete the required 144 credits, complete 800 clinical education experience hours, and be in compliance with the University Graduate School graduation requirements.

Option B Graduation Requirements:

The student must complete the required 84 credits, complete 800 clinical education experience hours, and be in compliance with the University Graduate School graduation requirement.

Option C Graduation Requirements:

The student must complete the required 36 credits and be in compliance with the University Graduate School graduation requirements.

Course Descriptions

Definition of Prefixes

APK - Applied Kinesiology; HSC - Health Sciences;
PET - Physical Education Therapy

APK 6118C Rehabilitation Techniques in Athletic Training with Lab (4). Introduction to basic principles of rehabilitation of athletic injuries, including range of motion, pain control, balance, proprioception, strengthening, and endurance. Prerequisite: PET 4642C. Corequisite: PET 5678.

HSC 4406 Management of Medical Emergencies (2). Students will learn the basic principles of managing medical emergencies utilizing immediate first aid techniques. American Red Cross certification in adult CPR and first aid will be obtained.

PET 3310 Kinesiology (3). Students study the anatomical and mechanical principles of movement and apply this knowledge in the analysis of physical education and athletic sport activities. (Includes laboratory class periods.) Prerequisites: ZOO 3731 or ZOO 3733 or PET 3325 or BSC 2085. (F,S,SS)

PET 3325C Anatomy for the Exercise and Sports Sciences (3). The human body will be studied using a body systems approach with emphasis on the organization and structure of the musculoskeletal, nervous, and cardiovascular systems. Corequisite: PET 3325L. (SS)

PET 3325L Anatomy for the Exercise and Sports Sciences Lab (1). The structure of the human body will be studied using hands-on experiences in the small group setting using class assignments, figures, models and computer activities. Corequisite: PET 3325C. (SS)

PET 3353 Physiology for the Exercise and Sports Sciences (3). The human body will be studied using a body systems approach with emphasis on the function of the musculoskeletal, nervous, and cardiovascular systems. Prerequisite: PET 3325C. Corequisite: PET 3353L. (SS)

PET 3353L Physiology for the Exercise and Sports Sciences Lab (1). The function of the human body will be studied in a small group setting using class assignments, figures, models, and physiologic measurements. Prerequisites: PET 3325C and PET 3325L. (SS)

PET 4148 Medical Documentation and Pharmacology (3). Students will learn the terminology, note writing, and documentation techniques used in athletic training. Students will learn basic principles of pharmaceutical intervention and implications of rehab.

PET 4520 Introduction to Clinical Education in Athletic Training (1). Introduction to the basic principles of managing medical emergencies utilizing immediate first aid techniques. Corequisite: HSC 4406.

PET 4621 Senior Seminar in Athletic Training (3). A culmination of the nine required courses for NATA certification, with experiences in written simulation, written multiple choice, and practical examinations. Prerequisites: PET 4622, PET 4622L, PET 4623, PET 4623L, PET 4632, PET 4632L.

PET 4623 Assessment of Athletic Injuries I – LE (3). Students will demonstrate knowledge of special tests used

for the evaluation of athletic injuries to the lower extremity. Designed to prepare the student for certification through the National Athletic Trainers Association. Prerequisites: Anatomy and PET 4622. (F)

PET 4623L Assessment of Athletic Injuries Lab I - LE

(1). A practical approach to the evaluation of athletic injuries to the lower extremity and spine. Prerequisite: PET 4622. Corequisite: PET 4623. (F)

PET 4624C Emergency Medicine for Athletic Trainers

(3). A practical approach to the care and management of medical emergencies that may occur in the field of athletic training. Advanced first aid and CPR is emphasized. Prerequisites: PET 4622, PET 4623.

PET 4627 Medical Conditions in Athletic Training (3).

Students will demonstrate knowledge of the medical conditions that can affect athletes, and learn about the proper techniques to recognize, care, and treat the athlete who had medical conditions. Prerequisites: PET 4622, PET 4622L, PET 4623, PET 4623L, PET 4633, PET 4633L, PET 4632, PET 4632L.

PET 4629 Athletic Training Symposium (3).

Provides insight and knowledge about various medical specialties and practitioners in the field of sports medicine that are related to athletic training and the care of the injured or ill athlete. Prerequisites: PET 4622, PET 4623.

PET 4630 Therapeutic Modalities for the Injured Athlete (3).

The theory behind the use of therapeutic modalities for the care and treatment of the injured athlete. Prerequisites: PET 4622, PET 4622L.

PET 4632 Therapeutic Exercise for the Injured Athlete (3).

The theory behind the use of therapeutic exercise for the care and treatment of injured athletes. Prerequisite: PET 4622. Corequisite: PET 4632L. (F,S)

PET 4632L Therapeutic Exercise for the Injured Athlete Lab. (1).

Practical, hands on experience in utilizing the proper technique and understanding the reason why the use of therapeutic exercises are used for the care and treatment of the injured athlete. Prerequisite: PET 4622. Corequisite: PET 4632. (F,S)

PET 4633 Assessment of Athletic Injuries II – Upper Extremity (3).

Students will demonstrate knowledge of special tests used for the evaluation of athletic injuries to the upper extremity and spine. Designed to prepare the students for certification through the National Athletic Trainers Association. Prerequisites: Anatomy and PET 4622. Corequisite: Assessment of Athletic Injuries Lab – UE.

PET 4633L Assessment of Athletic Injuries II – Upper Extremity Lab (1).

A practical approach to the evaluation of athletic injuries. Prerequisite: PET 4622. Corequisite: Assessment of Athletic Injuries II – Upper Extremity (class).

PET 4639C Acute Care and Injury Prevention (4).

Students will learn acute care of injuries; learn safety precautions and physical and environmental risk factors; and contraindications associated with participation in athletics/exercises.

PET 4642C Therapeutic Modalities (4).

Introduction to basic principles of theory and application of various

modalities encountered in athletic training practice and to apply the basic principles in the laboratory settings. Corequisite: PET 4672L.

PET 4643C Orthopedic Assessment I – Lower Extremity (4).

Introduction to common types of orthopedic injuries and/or dysfunctions that occur to the lower extremity during physical activity and the techniques of injury prevention, recognition, and evaluation. Prerequisites: PET 3325C, HSC 4406, PET 4639C, PET 4148. Corequisite: PET 4672L.

PET 4660 Administrative Concerns in Athletic Training (3).

The student will gain insight into the planning, management, and maintenance of an athletic training facility, including paperwork, budgeting, and liability concerns. (F)

PET 4672L Clinical Education I (3).

Designed to allow students to apply athletic training techniques associated with management of medical emergencies, acute care and injury prevention, and medical documentation and pharmacology. Prerequisites: HSC 4406, PET 4639C, PET 4148.

PET 5312C Orthopedic Assessment II – Upper Extremity (4).

Introduction to common types of orthopedic injuries and/or dysfunctions that occur to the upper extremity during physical activity and the techniques of injury prevention, recognition, and evaluation. Prerequisite: PET 4643C. Corequisite: PET 5678.

PET 5405 Administration and Professionalism in Athletic Training (3).

Introduction to the concepts of legal liability, budgeting, inventory, facilities design and general administration of the athletic training room. Prerequisites: PET 5609, PET 5672L, PET 5608, and PET 5624. Corequisite: PET 5673L.

PET 5608 Diseases and Disabilities in the Physically Active (3).

Introduction to the clinical signs and symptoms of general medical conditions that will present to the Certified Athletic Trainer. Prerequisites: PET 5312C, APK 6118C, and PET 5678. Corequisite: PET 5672L.

PET 5609 Orthopedic Assessment III – Head, Spine, and Trunk (4).

Introduction to common types of orthopedic injuries and/or dysfunctions that occur to the head, spine, and trunk during physical activity and the techniques of injury prevention, recognition, and evaluation. Prerequisite: PET 5312C. Corequisite: PET 5672L.

PET 5620 Advanced Principles and Practices in Athletic Training (3).

This course provides the student with advanced knowledge and practical skills related to treatment and rehabilitation of athletic injuries.

PET 5624 Intervention and Referral for the Physically Active (3).

Introduction to the intervention and referral processes for the physically active and sport psychology. Prerequisites: PET 5312C, PET APK 6118C, and PET 5678. Corequisite: PET 5672L.

PET 5625 Sports Medicine (3).

The class includes topics related to the prevention and treatment of non-traumatic athletic injuries. Practical applications in laboratory experiences are required. Prerequisite Exercise Physiology. (S)

PET 5672L Clinical Education III (3). Designed to allow students to apply athletic training techniques associated with orthopedic assessment of the upper extremity and rehabilitation. Prerequisites: PET 5312C, APK 6118C, PET 5678. Corequisites: PET 5609, PET 5608, and PET 5624.

PET 5673L Clinical Education IV (3). Designed to allow students to apply athletic training techniques associated with orthopedic assessment of the head, spine, and trunk, intervention and referral, and diseases and disabilities. Prerequisites: PET 5609, PET 5672L, PET 5608, and PET 5624. Corequisite: PET 5405.

PET 5678 Clinical Education II (3). Designed to allow students to apply athletic training techniques associated with orthopedic assessment of the lower extremity and therapeutic modalities. Prerequisites: PET 4643C, PET 4642C, PET 4672L. Corequisites: PET 5312C, APK 6118C.

PET 5716 Analysis and Observation of Teaching in Physical Education (3). This course analyzes the teaching-learning process in physical education. The emphasis is on systematic observation instruments and guidelines for systematic development of instructional skills. (F)

PET 6312 Advanced Orthopedic and Biomechanical Assessment of the Upper Extremity (3). Study principles and skills of advanced evaluation and rehabilitation techniques for upper-extremity dysfunction. Topics include orthopedic special tests, 3-dimensional kinematics, diagnostic tests and treatment. Prerequisites: PET 5312C or equivalent.

PET 6406L Physical Assessment, Measurement, and Evaluation Workshop (1-3). The workshop will provide the student with a working knowledge and basic theory in physical assessment, measurement, and evaluation laboratory teaching and develop skills associated with each. Prerequisite: Permission of instructor.

PET 6525C Athletic Training Residency (1-9). This seminar is designed for the first year graduate student who wishes to gain in-depth understanding of the current trends and professional development in the field of athletic training. Prerequisites: Graduate standing and permission of instructor.

PET 6526C Advanced Athletic Training Field Experience (1-9). This seminar is designed for the second year graduate student who wishes to gain in-depth understanding of the current trends and professional development in the field of athletic training. Prerequisites: Advanced AT/SM Seminar I and permission of instructor.

PET 6535 Master of Science Research in Exercise and Sports Sciences (1-3). The course is for graduate students performing an independent research project (treatise) or thesis as part of the graduate program of study. Prerequisites: EDF 5481 or equivalent and PET 6597 – Survey of Research.

PET 6675 Clinical Education V (3). Designed to allow students to apply the athletic training techniques associated with administration and professionalism in allied health care in selected clinical education settings. Prerequisites: PET 5405, PET 5673L.

PET 6971 Thesis in Athletic Training (1-6). This is an elective in the Masters of Science in Athletic Training track. It focuses on the design and preparation of and original scholarly investigation in Athletic Training. Prerequisite: EDF 5481. Corequisite: PET 6597.

Communication Sciences and Disorders

Noma B. Anderson, *Professor and Chair*

Alfredo Ardila, *Professor*

Ana Gouvea, *Assistant Professor*

Jean Mead, *Clinical Assistant Professor*

Mariateresa (Teri) Munoz, *Clinical Instructor*

Eliane Ramos, *Visiting Assistant Professor*

Communication Sciences and Disorders (CSD) is one of the departments in the College of Nursing and Health Sciences. This department offers a master's degree program in Speech Language Pathology. Additionally, nine undergraduate prerequisite courses are offered for interested applicants with a bachelor's degree in another discipline. The unique focus of the CSD department is one of Cultural and Linguistic Diversity (CLD). The goal of the department is to educate CLD professionals to meet the needs of multicultural populations with communication disorders. Students matriculating in the program will benefit from the infusion of CLD throughout the curriculum.

Students will have opportunities to receive clinical education from a variety of clinical settings in the Miami Metropolitan area including hospitals, schools, private practices and community based clinics. They will also engage in research projects with faculty members. A description of the admission requirements and description of master's programs follow.

Admission Criteria

Applicants for admission to the master's degree program must meet the current FIU minimum standards for admission to graduate school.

1. A grade point average of 3.0 in the last 60 hours of undergraduate study.
2. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Additionally, the CSD department requires the following for admission to the graduate program:

1. Departmental application
2. FIU Graduate School online application
3. Letter of interest summarizing interests
4. Two letters of recommendation from persons with knowledge of academic performance
5. Bachelor's degree in Communication Sciences and Disorders or completion of the 9 required prerequisite courses.

Requirements for students without a bachelor's degree in Communication Disorders

The Department of Communication Sciences and Disorders requires an individual applying for the master's degree to hold a bachelor's degree in communication disorders or its equivalent. An applicant's undergraduate background influences the time necessary to complete the graduate degree, as there are 9 prerequisite courses required for entrance to the graduate program. Interested individuals should contact the department prior to completing an application for admission. The following courses or their equivalents are required for all interested

persons without an undergraduate degree in communication disorders:

SPA 4002	Survey of Communication Disorders	3
SPA 4004	Introduction to Speech & Language Development and Disorders	3
SPA 4011	Speech & Hearing Science	3
SPA 4030	Introduction to Audiology	3
SPA 4050	Clinical Management in Communication Disorders	3
SPA 4101	Anatomy & Physiology of Speech & Hearing	3
SPA 4101L	Anatomy & Physiology of Sp. & Hear. Lab	1
SPA 4112	Principles of Phonetics	3
LIN 3013	General Linguistics	3

Master of Science in Speech Language Pathology

The Master of Science in Speech-Language Pathology consists of 51-55 graduate hours. The specific credit hours required will depend upon student's selection of thesis versus non-thesis options. Full time enrollment is required. Students will complete four semesters and two summers in the program. Student progress will be monitored each semester by departmental faculty.

An overall GPA of 3.0 is required for graduation. A grade of "B" or higher is required for all courses in your program of study. If a student receives a grade of "B-", then that course must be retaken; however, a course can be repeated only once. Only two courses can be used for the forgiveness policy. A passing grade is required in each clinical practicum course for continuation in or completion of the program. Any student who earns a grade of "B-" or lower in two clinical practicum courses will be terminated from the program.

Clinical practicum hours will be obtained in a variety of community settings. A minimum of 400 clock hours is required for graduation. Passage of the PRAXIS (600 passing score) is required for degree completion.

The program of study provides students with theoretical and clinical education to develop the competencies needed to practice as a speech-language pathologist. Upon completion of the master's degree, the graduate will have met all academic and practicum requirements for the certificate of clinical competence awarded by the American Speech-Language-Hearing Association. The Master of Science in Speech-Language Pathology at Florida International University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Blvd, Rockville, MD 20850, (301) 296-5700. Please feel free to contact the CAA if you have any questions about accreditation.

Program of Study

Core Courses in Speech Language Pathology (45)

Practical Courses (6)

SPA 5553	Differential Diagnosis of Communicative Disorders	3
SPA 5805	Research Methodology in Communication Disorders	3

Speech (15)

SPA 5401	Phonological Disorders	3
SPA 5216	Vocal, Velopharyngeal and Fluency Disorders	3
SPA 5107	Neurological Bases of Communication Disorders	3
SPA 6232	Neuromotor Communication Disorders and Augmentative Communication	3
SPA 6565	Dysphagia	3

Language (9)

SPA 5402	Language Learning in Preschool Children	3
SPA 5403	Language Learning in School-Aged Children	3
SPA 6410	Aphasia and Related Disorders	3

Audiology (3)

SPA 6322	Aural Habilitation and Rehabilitation	3
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Clinical Practicum (12)

SPA 5500	Basic Clinical Practicum	3
SPA 5502	Intermediate Clinical Practicum	3
SPA 6505	Advanced Clinical Practicum	3

One clinical practicum must be repeated for a total of 12 credits in clinical practica.

Research [Thesis-6 credit] or Bilingual Emphasis [Non-Thesis-10 credits]

Students are required to select a thesis or non-thesis option as partial fulfillment of the requirements for the master's degree. For the thesis option students will enroll in six hours of thesis (SPA 6971) credits. The non-thesis option (10 credits) mandates nine credits of coursework with emphasis on bilingual issues in communication disorders and one credit for a Master's Project (SPA 6930).

Bilingual Emphasis Requirements

SPA 6406	Dual Language Acquisition and Disorders	3
SPA 6005	Assessment & Treatment of the Bilingual Child with Communication Disorders	3
SPA 6479	Aging & Communication Disorders in a Bilingual Society	3
SPA 6930	Master's Project	1

Course Descriptions**Definition of Prefixes**

SPA – Speech Language Pathology

SPA 4002 Survey of Communication Disorders (3). Theory, evaluation, and therapeutic procedures with disorders of speech and language, including but not limited to, articulation disorders, childhood language disorders, aphasia, voice disorders, and disorders of fluency. Prerequisite: Permission of the instructor.

SPA 4004 Introduction to Speech and Language Development and Disorders (3). The study of normal speech and language acquisition and associated disorders. Prerequisite: Permission of the instructor.

SPA 4011 Speech and Hearing Science (3). Study of speech and hearing physiology, acoustic phonetics, and speech perception. Prerequisite: Permission of the instructor.

SPA 4030 Introduction to Audiology (3). Principles of auditory reception; the hearing mechanism; problems

involved in measuring, evaluating, and conserving hearing. Prerequisite: Permission of the instructor.

SPA 4050 Clinical Management in Communication Disorders (3). The course focuses on procedures for working in various practicum settings. It includes observation of evaluation and treatment sessions. Prerequisite: Permission of the instructor.

SPA 4101 Anatomy and Physiology of Speech and Hearing (3). Anatomy and physiology of the speech and hearing mechanisms. Including nomenclature, respiration, phonation, articulation/resonance, the nervous system, and the auditory system. Prerequisite: Permission of the instructor.

SPA 4101L Anatomy and Physiology of Speech and Hearing Lab (1). Lab to accompany SPA 4101. Prerequisite: Permission of instructor. Corequisite: SPA 4101.

SPA 4112 Principles of Phonetics (3). Principles of phonetics and their application to speech. Classification of speech sounds according to various systems including, but not limited to, manner and place, distinctive features, and phonological processes. Phonetic transcription utilizing the International Phonetic Alphabet. Prerequisite: Permission of the instructor.

SPA 5107 Neurological Bases of Communication (3). The anatomical and physiological aspects of the central and peripheral nervous system as they pertain to communication acquisition and disorders. Prerequisite: Permission of the instructor.

SPA 5216 Vocal, Velopharyngeal, and Fluency Disorders (3). Study of etiology, symptoms, and treatment strategies for a variety of vocal, craniofacial and fluency disorders. Prerequisite: Permission of the instructor.

SPA 5401 Phonological Disorders (3). An examination of normal and deviant articulatory acquisition and behavior. Presentation of major theoretical orientations and the therapeutic principles based upon them. Prerequisite: Permission of the instructor.

SPA 5402 Language Learning in Preschool Children (3). Presentation of the linguistic development in children ages 0-5 years as well as the delays and disorders associated with language. Prerequisite: Permission of the instructor.

SPA 5403 Language Learning in Preschool Children (3). Presentation of the linguistic development in children ages 0-5 years as well as the delays and disorders associated with language. Prerequisite: Permission of the instructor.

SPA 5500 Basic Clinical Practicum (3). Supervised practice with representative speech and language problems in the school settings. Prerequisites: SPA 5401, SPA 5403, SPA 5404, SPA 5553.

SPA 5502 Intermediate Clinical Practicum (3). Supervised practice with communication problems in outpatient settings, private practices, rehabilitation. Prerequisite: SPA 5500.

SPA 5553 Differential Diagnosis of Communicative Disorders (3). The administration, evaluation and reporting of diagnostic tests and procedures used in

assessment of speech and language disorders.
Prerequisite: Permission of the instructor.

SPA 5805 Research Methodology in Communication Disorders (3). Research design, statistical analysis (descriptive and inferential) and dissemination of experimental data, with an emphasis on clinical research. Legal/ethical and cultural consideration in research design and implementation will also be addressed. Prerequisite: Permission of the instructor.

SPA 6005 Assessment & Treatment of the Bilingual Child with Communication Disorders (3). Assessment and treatment of normal and atypical language development across cultures. Prerequisite: Permission of the instructor.

SPA 6232 Neuromotor Communication Disorders and Augmentative Communication (3). Study of medical, physical, occupational, speech, language, and hearing problems of the neuromotorically impaired client, including assessment and intervention strategies for augmentative communication. Prerequisites: SPA 5106 and Permission of the instructor.

SPA 6322 Aural Habilitation and Rehabilitation (3). Provide information and strategies for aural habilitation intervention with hearing impaired children. Includes techniques of speech reading, auditory training and language for the hearing impaired. Prerequisite: Permission of the instructor.

SPA 6406 Dual Language Acquisition and Disorders (3). Development of normal and atypical language in speakers of more than one language. Prerequisite: Permission of the instructor.

SPA 6410 Aphasia and Related Disorders (3). Consideration of the neurological and psychological aspects of aphasia and related approaches are discussed and evaluated. Prerequisites: SPA 5106 and Permission of the instructor.

SPA 6479 Communications Disorders and Aging in a Bilingual Society (3). Survey of types and characteristics of bilingualism and normal and atypical speech and language changes associated with aging. Prerequisite: Permission of the instructor.

SPA 6505 Advanced Clinical Practicum (3). Supervised practice with severe communication problems in area hospitals and long term care facilities. Prerequisite: SPA 5502.

SPA 6565 Dysphagia (2). Information and training in the evaluation and treatment of swallowing disorders. Prerequisite: Permission of the instructor.

SPA 6930 Master's Project (1-6). This course provides the student with an opportunity to explore in-depth a specific topic of interest in speech pathology. Prerequisite: Permission of the instructor.

SPA 6938 Topics in Speech Pathology (1-3). This course is intended to give students information about topical issues in the field of Speech Language Pathology. Prerequisite: Permission of instructor.

SPA 6971 Master's Thesis (1-6). Supervised research on an original research project submitted in partial fulfillment of the Master's degree requirement. Prerequisite: Permission of the instructor.

Health Sciences

Carol DeLong Pyles, Ed.D., RN, CHES, NCC, CTAC-CAP, LPC, *Professor and Director, Health Sciences, College of Nursing and Health Sciences*

Rose Colón, Ph.D., *Assistant Professor, Health Sciences, College of Nursing and Health Sciences*

Health Sciences Courses

Health Sciences offers courses open to all students in the university. The current courses being offered are:

HSC 5319 Teaching Health Education (4). Students will select various modern techniques and tools for teaching health education in elementary and secondary school settings.

HSC 5665 Information and Communication for Health Professionals (3). Information and communication technology introduces technology and practical computer applications for today's health care professional. This on-line course uses a web-based format. Prerequisite: Basic computer experience.

HSC 5905 Health Independent Study (3). Faculty supervised project in health-related topics in association with the student's special interests.

Nursing

Grossman, Divina, Ph.D., RN, ARNP, FAAN *Dean and Professor, College of Nursing and Health Sciences*

Anderson, Kathryn, Ph.D., RN, ARNP *Associate Professor, Nursing*

Blais, Kathleen, Ed.D., RN *Associate Professor, Nursing*

Brooten, Dorothy, Ph.D., RN, FAAN *Professor, Nursing*

Brown, Ellen, Ed.D., RN, ARNP *Associate Professor, Nursing*

Chadwell, Katherine, MSN, RN-BC, CCRN, ARNP *Clinical Assistant Professor, Nursing*

Dlugasch, Lucie, MSN, RN-BC, ARNP *Clinical Assistant Professor, Nursing*

Fletcher, Cynthia, Ph.D., RN *Assistant Professor, Nursing*

Friedemann, Marie-Luise, Ph.D., RN *Visiting Professor, Nursing*

Garcia-Jones, Sandra, Ph.D., RN, ACRN, ARNP, FAAN *Associate Professor, Nursing*

Galindo-Ciocon, Daisy, Ph.D., RN, ARNP *Associate Professor, Nursing*

Gillespie-Johnson, Marjorie, Ph.D., RN-BC, ARNP *Assistant Professor, Nursing*

Gonzalez, Juan, MS, RN, CRNA, ARNP *Clinical Assistant Professor, Nursing*

Gonzalez, Vicente, MS, RN, CRNA, ARNP *Clinical Assistant Professor, Nursing*

Granville, Mirta, MSN, RN-BC, ARNP *Clinical Assistant Professor, Nursing*

Groom, Jeffrey, Ph.D., RN, CRNA, ARNP *Clinical Associate Professor and Interim Director, Anesthesiology Nursing*

Hamilton, Margaret, DNS, RN *Clinical Associate Professor and Director for Undergraduate Programs, Nursing*

Hernandez, Laura, MSN, RN-BC, ARNP *Instructor, Nursing*

Jones, Sandra, Ph.D., RN, ACRN, ARNP, FAAN *Associate Professor, Nursing*

Keane, Florence, DNS, RN-BC, ARNP *Assistant Professor, Nursing*

Lizardo, Lourdes, Ed.D., RN-BC, ARNP *Clinical Associate Professor, Nursing*

Lobar, Sandra, Ph.D., RN, ARNP *Associate Professor, Nursing*

Olafson, Elizabeth, MEd, RN *Clinical Assistant Professor and Director for Clinical Placements, College of Nursing and Health Sciences*

Parchment, Yvonne, Ed.D., RN, ARNP, CNE *Clinical Associate Professor, Nursing*

Patsdaughter, Carol, Ph.D., RN *Clinical Professor, Nursing*

Phillips, Suzanne, Ed.D., RN, ARNP *Associate Professor, Nursing*

Pontious, Sharon, Ph.D., RN, CNE *Professor and Associate Dean of Academic Affairs, College of Nursing and Health Sciences, Interim Director for Graduate Programs, Nursing*

Porter, Luz, Ph.D., RN, ARNP, FAAN *Professor, Nursing*

Thomas, Tami, Ph.D., RN-BC, ARNP *Assistant Professor, Nursing*

Youngblut, Jo-Anne, Ph.D., RN, FAAN *Professor, Nursing*

The Master of Science in Nursing (MSN) program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, New York 10006 (800-669-1656 ext. 153) and by the Council on Accreditation of Nurse Anesthesia Educational Programs, 222 S. Prospect Ave., Suite 304, Park Ridge, Illinois 60068 (847-692-7050) and is approved by the Florida Board of Nursing (4052 Bald Cypress Way, BIN CO2, Tallahassee, FL 32399, 850-245-4125).

The College of Nursing and Health Sciences also offers a Ph.D. in Nursing degree, as well as selected continuing education courses.

Master of Science in Nursing

The College offers a program of study leading to the Master of Science in Nursing (MSN) degree to prepare qualified professional nurses for advanced nursing roles in the care of adults, children, and families. The program offers clinical tracks in adult health nursing (AHN), psychiatric-mental health nursing (PMHN), family health nursing (FHN), child health nursing (CHN), and anesthesiology nursing (AN), and a track for the Nurse Executive (NE). The design of the program allows for the development of the nurse practitioner role, or the nurse anesthetist role.

Throughout the curriculum, students are guided in the process of self-development to pursue excellence in professional and scholarly endeavors. The program allows flexibility within the basic curricular structure through individualized learning experiences, electives, a thesis, masters paper, or research project, and the opportunity to investigate an area of interest in advanced study.

The curriculum model allows students to enroll on a full-time or part-time basis. The duration for the individual student study plan is determined in consultation with a faculty adviser and is based on the student's experiential background and goals. The program can be completed in four semesters of full-time study for the AHN, CHN, PMHN, FHN and NE tracks averaging 9-12 credit hours per semester. Part-time study can be completed in a variable time but not to exceed six years. The AN track requires seven semesters (full time only), varying from 7-16 credit hours per term.

Graduates are qualified to apply for ARNP licensure in Florida and are prepared to apply for certification as an advanced nurse practitioner in the chosen specialty area of anesthesiology, adult health, child health, family health, or psychiatric-mental health nursing.

Program Objectives

1. Provide comprehensive, specialized quality care to clients in various settings, incorporating theories and advanced knowledge into nursing practice.
2. Utilize critical thinking, therapeutic communication and appropriate teaching, management, consultative, and advanced clinical skills in the exercise of professional responsibilities.
3. Integrate developmental, cultural, spiritual, physiological, and psychosocial concepts in advanced professional role performance.
4. Investigate clinical problems and test theory, contributing to the theoretical basis of nursing and the specialty area.

5. Function as a leader and change agent in the health care and professional arena, enhancing improved delivery of health care and influencing health policy.
6. Demonstrate leadership in the development and implementation of professional standards and conduct.

Common Prerequisite Courses and Equivalencies

<u>FIU Course(s)</u>	<u>Equivalent Course(s)</u>
STA 3145	STA X014
CHM 1033/L	CHM X033
PCB 2099/L	BSC X085C
ZOO 3731/L	BSC X086C
MCB 2000/L	MCB X010C
DEP 2000	DEP X004
PSY 2020	PSY X012
HUN 2201	HUN X201

Courses which form part of the statewide articulation between the State University System and the Community College System, will fulfill the Lower Division Common Prerequisites.

Admission Requirements

The applicant must:

1. Meet the admission requirements for graduate education at Florida International University, that is, a GPA of at least 3.0 (B) average in upper level work. Nursing uses a point system for the admission evaluation of applicants to the NP clinical tracks. The NP point system is found at <http://www.nursing.fiu.edu>. Applicants for the Anesthesiology Nursing track must take the Graduate Record Examination (GRE). Additional AN admission requirements are found at <http://nursing.fiu.edu/anesthesiology>.

2. Have completed a baccalaureate degree in nursing which is accredited by the National League for Nursing Accrediting Commission (NLNAC), or the Commission on Collegiate Nursing Education (CCNE). Applicants with a baccalaureate degree from nursing programs without NLNAC or CCNE accreditation will be considered on an individual basis. RN applicants to the Anesthesiology Nursing (AN) clinical track who have a non-nursing baccalaureate are eligible for admission through the MSN bridge program. Contact the Office of Anesthesiology Nursing for specific details. RN applicants (with a baccalaureate degree in another field) to the MSN program must have completed a non-nursing baccalaureate degree with a GPA of 3.0 or higher from a nationally accredited college or university.

3. Have evidence of a current RN licensure in Florida.
4. Have at least one year clinical nursing experience as an RN. For AN applicants, this experience must be in critical care.
5. Have completed introductory courses in statistics (3 credits), and basic health assessment (3 credits). RN (with a non-nursing baccalaureate degree) to MSN applicants must have completed the following:

a. Undergraduate courses with a grade of "C" or higher:	
Statistics (any intro to Stats)	3
Survey of Chemistry & Lab (CHM 1033/1033L)	4
Human Anatomy/Physiology & Labs (ZOO 3731/3731L & PCB 2099/2099L)	8
Introductory Microbiology & Lab (MCB 2000/2000L)	4
Human Growth & Development (DEP 2000)	3

Introduction to Psychology (PSY 2020)	3
Introduction to Ethics (PHI 2600)	3
Principles of Nutrition (HUN 2201)	3

b. Have completed the required baccalaureate level Excelsior College equivalency examinations in Psychiatric Mental Health Nursing, Adult Health Nursing, and Mental Child Health Nursing with a grade of "C" or better.

6. Submit evidence of basic computer application (word processing) skills.

7. Have a faculty interview.

8. Provide the following:

- a. Statement of philosophy of nursing and professional goals.

- b. Letters of reference from: 1) a previous nursing faculty; 2) a current immediate supervisor; and 3) a co-worker.

9. For international students (graduates of foreign nursing schools) only:

- a. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

- b. CGFNS certification of Florida RN license.

10. The Florida Board of Nursing and clinical agencies require the disclosure of conviction records for misdemeanors and/or felonies; therefore, this information will be required at the time of application. Applicants are required to submit to criminal background checks and drug testing. Expenses associated with background checks and drug testing (including repeat testing) are at the responsibility of the student. Findings may affect a student's ability to participate in clinical experiences and complete the program, and/or obtain advanced licensure/certification.

Nursing majors are responsible for transportation expenses related to clinical experiences. They are required to carry health and accident insurance. To safeguard the health of clients, nursing students are required to submit proof of immunizations upon entry to into the nursing program. Students must submit proof of basic cardiopulmonary resuscitation (CPR) certification (American Heart Association) prior to entering clinical courses in the nursing major. This CPR certification must cover the period of enrollment in the major.

In addition to graduate tuition and fees, NP nursing students are charged a fee of \$200/credit for courses with an "L" suffix. The additional fee supports clinical instructional costs, testing preparation, and laboratory/technology supplies and costs. Contact the Office and Anesthesiology Nursing for information on AN fees.

The College reserves the right to terminate a student from the nursing program for reasons related to the inability to safely carry out professional responsibilities.

Application Process

Applicants must complete the following steps in order to be considered for admission:

1. Complete two applications as indicated and return to the appropriate offices:

- a. Complete a FIU graduate admissions application online available at <http://gradschool.fiu.edu>.

b. Complete an application for the graduate nursing major and send to College of Nursing, University Park Campus, HLS 2, Room 485, 11200 SW 8th St., Miami, Florida 33181, telephone: (305) 348-7703. For admission to the MSN Anesthesiology Nursing track send application to: FIU College of Nursing, University Park Campus, HLS 2, Room 656, 11200 SW 8th St., Miami, Florida, 33181, telephone: (305) 348-7747 (No service fee).

2. Request an official transcript of records from each college or university attended for undergraduate and graduate work. A transcript must be sent to both 1) Florida International University, Office of Graduate Admissions, P.O. Box 659004, Miami, Florida 33265-9004 and 2) the College of Nursing Admission Office.

3. Schedule an interview with the Director for Admissions and Student Services (305) 348-7703. For applicants applying to the Anesthesiology Nursing clinical track, call (305) 348-7747. The interview is for the purpose of discussing the admission criteria and application process, and identifying deficiencies and transferable credits.

4. Send three reference letters to the FIU College of Nursing. For AN applicants, the application materials must include a complete, comprehensive, and current curriculum vitae.

5. Participate in an interview with a faculty member teaching in the graduate program. The interview is for the purpose of evaluating the educational goals, verifying application materials, reviewing admission criteria, identifying deficiencies and transferable credits, as well as projecting a tentative plan of study. The applicant should take an active role in the interview process to be informed about the program and the basis for the admission criteria.

Degree Requirements

1. AHN, CHN, FHN, PMHN, or Nurse Executive Track: completion of 43 semester credits. The FHN Track is 47 credits. Minimum of 36-40 credits in nursing and 3-6 credits of non-nursing electives. The non-nursing electives are restricted to supporting courses for the specialty area.

2. AN Track: completion of 71 semester credits as specified.

3. Completion of a thesis (6 credits), a master's paper (3 credits), or a research project (3 credits). Students electing a master's paper or research project must complete an additional three hours of cognate course(s).

4. Achievement of an overall cumulative GPA of 3.0 or above. See Graduate Catalog in University Graduate School Rules and Regulations for information on Academic Warning, Probation, and Dismissal.

5. Removal of all conditions, deficiencies, and incomplete grades. Credit hours for courses in which the grade is "B-" or below will not count toward satisfying graduate degree requirements.

With the exception of thesis courses, students are expected to register for courses with letter grades. Electives may be taken as pass/fail subject to the approval of the advisor.

NOTE: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's and College's various publics and to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, and other regulatory and accrediting agencies. Changes may be made without advance notice. Please refer to the General Information

section for the University's policies, requirements, and regulations. Please refer to the College's website for updated information in nursing.

Curriculum

RN Baccalaureate Level Course Requirements (12)

NUR 3825	P.N. I: Socialization	3
NUR 4827	P.N.: Leadership	3
NUR 4636	Community Health Nursing	3
NUR 4636L	Community Health Clinical	3

MSN Level Course Requirements:

Graduate Nursing Core (9)

NGR 5110	Theories in Nursing	3
NGR 5604	Culture and Advanced Nursing Practice	3
NGR 5810	Research Methods in Nursing	3

Advanced Practice Nursing Core (AHN, CHN, MHN, FHN Tracks) (9)

NGR 5035C	Advanced Client Assessment	3
NGR 5141	Pathophysiological Basis of ANP	3
NGR 6192	Pharmacological Concepts in ANP	3

Advanced Practice Nursing Core (NE Track) (9)

NGR 5730C	Org Dynamics of Nursing Systems	3
NGR 5871C	Nursing Informatics	3
NGR 6726C	Nursing Management and CQI	3

Nursing Specialty

Advanced Adult Health Nursing (15)

NGR 6201C	Advanced Adult Health Nursing I	3
NGR 6210L	Advanced Adult Health Nursing Practice I	3
NGR 6202C	Advanced Adult Health Nursing II	3
NGR 6211L	Advanced Adult Health Nursing Practice II	3
NGR 6209	Clinical Decision Making	3

Advanced Child Health Nursing (12)

NGR 6301C	Advanced Child Health Nursing I	3
NGR 6301L	Advanced Child Health Nursing Practice I	3
NGR 6303C	Advanced Child Health Nursing II	3
NGR 6302L	Advanced Child Health Nursing Practice II	3

Advanced Psychiatric-Mental Health Nursing (15)

Note: A moratorium has been placed on admissions to the Advanced Psychiatric-Mental Health Nursing Track for the 2008-2009 academic year.

NGR 6502C	Advanced Psychiatric-Mental Health Nursing I	3
NGR 6503L	Advanced Psychiatric-Mental Health Nursing Practice I	3
NGR 6504C	Advanced Psychiatric-Mental Health Nursing II	3
NGR 6507L	Advanced Psychiatric-Mental Health Nursing Practice II	3
NGR 6538	Psychopharmacology for Advanced Practice Nursing	3

Advanced Family Health Nursing (16)

NGR 6601C	Advanced Family Health Nursing I	4
NGR 6601L	Advanced Family Health Nursing Practice I	4
NGR 6602C	Advanced Family Health Nursing II	4
NGR 6602L	Advanced Family Health Nursing Practice II	4

***Advanced Family Health Nursing Sub-Specialty**

(6)	(Intensive Practicum in Specialized Area: Select One)	
	*Management of Persons with HIV/AIDS	6
	*Management of Survivors of Domestic Violence	6
	*Management of the Elderly	6

Nurse Executive (8)

NGR 5723C	Advanced Nursing Administration I	4
NGR 6724C	Advanced Nursing Administration II	4

Anesthesiology Nursing (45)

NGR 6091	Principles of Anesthesiology Nursing I	2
NGR 6011	Chemistry and Physics of Anesthesiology Nursing I	2
NGR 6173	Pharmacology of Anesthesiology Nursing I	1
NGR 6270L	Anesthesiology Nursing Practicum I	1
NGR 6144	Advanced Bioscience for Anesthesiology Nursing I	3
NGR 6093	Principles of Anesthesiology Nursing II	3
NGR 6174	Pharmacology of Anesthesiology Nursing II	2
NGR 6092	Regional Anesthesia	2
NGR 6012	Chemistry and Physics of Anesthesiology Nursing II	1
NGR 6271L	Anesthesiology Nursing Practicum II	2
NGR 6094	Principles of Anesthesiology Nursing III	2
NGR 6272L	Anesthesiology Nursing Practicum III	3
NGR 6145	Advanced Bioscience for Anesthesiology Nursing II	3
NGR 6273L	Anesthesiology Nursing Practicum IV	4
NGR 6097	Principles of Anesthesiology Nursing IV	2
NGR 6274L	Anesthesiology Nursing Practicum V	4
NGR 6275L	Anesthesiology Nursing Practicum VI	4
NGR 6276L	Anesthesiology Nursing Practicum VII	4

Role Development (4)**Advanced Practice Nurse**

NGR 6704L	Role Synthesis in Advanced Adult Health Nursing Practice	4
	or	
NGR 6306L	Role Synthesis in Advanced Child Health Nursing Practice	4
	or	
NGR 6505L	Role Synthesis in Advanced Psychiatric Mental Health Nursing Practice	4
	or	
NGR 6619L	Role Synthesis in Advanced Family Health Nursing Practice	4

Role Development**Nurse Anesthetist (5)**

NGR 6010	Technology in Anesthesiology Nursing I	1
NGR 6760	Professional Aspects of Anesthesiology Nursing I	1
NGR 6098	Advanced Anesthesiology Nursing Seminar	3

Nursing Administration (7)

NGR 6712C	Advanced Nursing Administration III	4
NGR 6727	Issues & Strategies of Nursing Administration	3

Nursing Education (7)

NGR 6710	Role Synthesis in Nursing Education	4
NGR 6713	Curriculum Development in Nursing	3

Nurse Executive (10)

NGR 6712L	Role Synthesis in Nursing Administration	4
HSA 6176	Financing and Reimbursement of Health Systems	3
PHC 6443	Ethical Issues	3

Research (6)**Master's Thesis Option**

NGR 6970	MSN Thesis I	3
NGR 6971	MSN Thesis II	3

OR**Master's Paper Option**

NGR 6910	Research Project	3
Elective		3

OR**Master's Project Option**

NGR 6910C	Research Project	3
Elective		3

Sample Program Progression Plan (Full-Time Study)

Specialty Track: Adult Health Nursing Research Option:
Master's Thesis

Semester I (12)

NGR 5035C	Advanced Client Assessment	3
NGR 5110	Theories in Nursing	3
NGR 5141	Pathophysiologic Basis of Advanced Nursing Practice	3
NGR 5604	Culture and Advanced Nursing Practice	3

Semester II (12)

NGR 5810	Research Methods in Nursing	3
NGR 6192	Pharmacological Concepts in Advanced Nursing Practice	3
NGR 6201C	Advanced Adult Health Nursing I	3
NGR 6210L	Advanced Adult Health Nursing Practice I	3

Semester III (11)

NGR 6202C	Advanced Adult Health Nursing II	3
NGR 6211L	Advanced Adult Health Nursing Practice II	3
NGR 6970	Thesis I	3
Elective		2

Semester IV (7)

NGR 6704L	Role Synthesis in Advanced Adult Health Nursing Practice	4
NGR 6971	Master's Thesis II	3

Sample Program Progression Plan (Part-Time Study)

Specialty Track: Adult Health Nursing Research Option:
Master's Thesis

Semester I (6)

NGR 5110	Theories in Nursing	3
NGR 5141	Pathophysiologic Basis of Advanced Nursing Practice	3

Semester II (6)

NGR 5035C	Advanced Client Assessment	3
NGR 6192	Pharmacological Concepts in Advanced Nursing Practice	3

Semester III (6)

NGR 5604	Culture and Advanced Nursing Practice	3
NGR 5810	Research Methods in Nursing	3

Semester IV (6)

NGR 6201C	Advanced Adult Health Nursing I	3
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NGR 6210L	Advanced Adult Health Nursing Practice I	3
Semester V (9)		
NGR 6202C	Advanced Adult Health Nursing II	3
NGR 6211L	Advanced Adult Health Nursing Practice I	3
NGR 6970	Thesis I	3
Semester VI (5)		
NGR 6971	Thesis II	3
Elective		2
Semester VII (4)		
NGR 6704L	Role Synthesis in Advanced Adult Health Nursing Practice	4

Sample Program Progression Plan (Full-Time Study)

Specialty Track: Adult Health Nursing Research Option:
Master's Thesis Option

Semester I (12)		
NUR 3825	P.N. I: Socialization	3
NUR 4827	P.N.: Leadership	3
NGR 5110	Theories in Nursing	3
NGR 5604	Culture and Advanced Nursing Practice	3
Semester II (9)		
NGR 5810	Research Methods in Nursing	3
NUR 4636	Community Health Nursing	3
NUR 4636L	Community Health Clinical	3
Semester III (9)		
NGR 5141	Pathophysiologic Basis of Advanced Nursing Practice	3
NGR 5035C	Advanced Client Assessment	3
NGR 6192	Pharmacological Concepts in Advanced Nursing Practice	3
Semester IV (9)		
NGR 6201C	Advanced Adult Health Nursing I	3
NGR 6210L	Advanced Adult Health Nursing Practice I	3
NGR 6970	MSN Thesis I	3
Semester V (9)		
NGR 6202C	Advanced Adult Health Nursing II	3
NGR 6211L	Advanced Adult Health Nursing Practice I	3
NGR 6971	MSN Thesis II	3
Semester VII (7)		
NGR 6704L	Role Synthesis in Advanced Adult Health Nursing Practice	4
Elective		3

Ph.D. in Nursing

The Ph.D. in Nursing program is designed to prepare its graduates for leadership roles and research careers in academia, the health care industry, and government and private organizations focused on health care. The program purpose is to develop individuals who will be leaders in generating and applying the science needed to guide nursing practice, and who have the knowledge and skills to direct and guide application of other evidence-based health care findings to improve the health of people from diverse cultures. Students in the program will pursue individualized courses of study under the mentorship of research active faculty. A major program emphasis is the preparation of Ph.D. educated minority nursing leaders and focused research on health issues for minority and underserved populations.

Admission Requirements

A prospective student must meet all admission requirements stipulated in the University's Graduate Policies and Procedures. In addition, the requirements for admission to the Ph.D. in Nursing program are as follows:

1. A master's degree in nursing with a clinical specialty from an accredited institution.
2. A master's program grade point average (GPA) of 3.3/4.0 or higher.
3. A combined score of 1120 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE). The GRE must have been taken within the last 5 years of the date postmarked on the application. If the GRE was taken prior to 5 years and the combined score is high, call the College's Doctoral Program Office to determine if a waiver is possible.
4. Three letters of recommendation from academic and professional references.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
6. A statement of the applicant's goals for pursuing the PhD degree in nursing. This statement must be prepared in typed, double-spaced, narrative format of no more than 500 words, using Times New Roman or Arial 12 Font.
7. Current Registered Nurse (RN) licensure or RN licensure with Advanced Registered Nurse Practitioner (ARNP) certification in the State of Florida. The license must remain current throughout the program.
8. Current professional liability insurance. The graduate student must maintain liability insurance throughout the program.
9. A satisfactory interview by members of the College's Doctoral Program Admissions Committee. The Committee will examine the credentials of all applicants.

Application Process

Applicants must complete the following steps in order to be considered for admission:

1. Complete two applications as indicated and return to the appropriate offices to avoid unnecessary delay in the review process.
 - a. Complete a graduate admissions application online available at <http://gradschool.fiu.edu>.
 - b. Application for admission for Ph.D. in Nursing program to: FIU College of Nursing, University Park Campus, HLS 2, Room 377, 11200 SW 8th St., Miami, Florida 33181. (No service fee).
2. Request an official transcript of records from each college or university attended for undergraduate and graduate work. Transcripts must be sent to both 1) FIU, Office of Graduate Admissions, P.O. Box 659004, Miami, Florida 33265-9004 and 2) the College of Nursing and Health Sciences Admissions Office.
3. Submit the required documents (transcripts, GRE scores, TOEFL scores if applicable, letters of recommendation, statement of goals, RN licensure, liability insurance) for admission evaluation. The application and required documents do not have to be sent to the University Graduate Admissions Office or the College Admissions Office as one package; however, all required

documents **MUST** be received on or before the deadline date.

4. The application file must be complete before the College's Doctoral Program Committee will consider the applicant for admission. The application and supporting documents must be received on or before June 1 for Fall admission, October 1 for Spring admission, and March 1 for Summer admission. If the application and supporting documents are not received by the appropriate deadline, the application will be considered for admission for the following term.

Degree Requirements

1. Completion of 60 credit hours of coursework and a minimum of 24 hours of dissertation credits. The program can be completed in 4 years of full-time study.

2. Completion of the following courses: A research sequence (1 course on knowledge development, 2 courses in research methods and design, 2 courses in statistics, and 3 one-credit courses on grantsmanship); research in health care for multicultural, diverse and vulnerable populations; academic, health care and political systems: function, structure, leadership and survival; accessing, managing, and packaging information; and 3 cognate courses in a specific knowledge area.

3. Achievement of an overall cumulative GPA of 3.0 or above. A cumulative GPA of less than 3.0 will place the student on probation for one semester, and she/he may be subject to dismissal if the 3.0 GPA requirement is not met after the probationary period.

4. Removal of all conditions, deficiencies, and incomplete grades. With the exception of doctoral dissertation courses, students are expected to register for courses with letter grades. Credit hours for courses in which the grade is "C" or below will not count toward satisfying graduate degree requirements.

5. Student is expected to complete the dissertation five (5) years from the date of advancement to candidacy (i.e., successful completion of written and oral examinations, favorable recommendation of supervisory/guidance committee, and an approved dissertation proposal).

6. All requirements must be completed within nine years of first enrollment in the doctoral program.

Curriculum (60 Credits)

Knowledge Development (3)

NGR 6123	Knowledge Development in Nursing Science	3
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Research Methods and Design (6)

NGR 6800	Advanced Nursing Research Methods I: Design and Sampling	3
NGR 6801	Advanced Nursing Research Methods II: Measurement and Dissemination	3

Statistics (6)

PHC 6718	Quantitative Research Analysis in Health and Urban Affairs II	3
XXXX	Statistics Elective	3

Grantsmanship (3)

NGR 6917	Grantsmanship I	1
NGR 6918	Grantsmanship II	1
NGR 6919	Grantsmanship III	1

Cognates (18)

NGR 7830	Research in Health Care for Multicultural, Diverse, and Vulnerable Populations	3
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NGR 7736	Academic, Health Care, and Political Systems: Function, Structure, Leadership, and Survival	3
NGR 7873	Accessing, Managing and Packaging Information	3
XXXX	Cognate Electives	9
Dissertation (24)		
NGR 7XXX	Doctoral Dissertation	24

Sample Program Progression Plan (Full-Time Study)

Fall Semester (10)

NGR 6123	Knowledge Development in Nursing Science	3
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NGR 7736	Academic, Health Care, and Political Systems: Function, Structure, Leadership, and Survival	3
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NGR 6800	Advanced Nursing Research Methods I: Design and Sampling	3
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NGR 6917	Grantsmanship I	1
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Spring Semester (10)

NGR 7830	Research in Health Care for Multicultural, Diverse, and Vulnerable Populations	3
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XXXX	Cognate Elective	3
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NGR 6801	Advanced Nursing Research Methods II: Measurement and Dissemination	3
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NGR 6918	Grantsmanship II	1
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Fall Semester (10)

XXXX	Statistics Elective	3
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NGR 7873	Accessing, Managing and Packaging Information	3
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XXXX	Cognate Elective	3
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NGR 6919	Grantsmanship III	1
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Spring Semester (9)		
PCH 6718	Quantitative Research Analysis in Health and Urban Affairs II	3

XXXX	Cognate Elective	3
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NGR 7980	Doctoral Dissertation I	3
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Fall Semester (3)		
NGR 7891	Doctoral Dissertation II	3

Spring Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Fall Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Spring Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Fall Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Spring Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Fall Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Spring Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Fall Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Spring Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Fall Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Spring Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Fall Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Spring Semester (6)		
NGR 7891	Doctoral Dissertation II	6

Fall Semester (4)

NGR 6800	Advanced Nursing Research Methods I: Design and Sampling	3
NGR 6618	Grantsmanship II	1

Spring Semester (6)

PCH 6718	Quantitative Research Analysis in Health and Urban Affairs II	3
XXXX	Cognate Elective	3

Summer Semester (3)

NGR 7873	Accessing, Managing and Packaging Information	3
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Fall Semester (4)

NGR 6801	Advanced Nursing Research Methods II: Measurement and Dissemination	3
NGR 6919	Grantsmanship III	1

Spring Semester (6)

XXXX	Cognate Elective	3
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Fall Semester (6)

NGR 7890	Doctoral Dissertation I	1
NGR 7891	Doctoral Dissertation II	5

Spring Semester (6)

NGR 7891	Doctoral Dissertation II	6
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Fall Semester (6)

NGR 7891	Doctoral Dissertation II	6
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Spring Semester (6)

NGR 7891	Doctoral Dissertation II	6
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Course Descriptions**Definition of Prefixes**

GEY – Gerontology

NGR – Nursing Graduate

GEY 5005C Issues in Gerontology for Health Professions (3). This course examines social, economic, and demographic issues challenging older adults and health care professionals providing services to this age group.

NGR 5035C* Advanced Client Assessment (3). Refinement of health assessment skills fundamental to advanced nursing practice. Emphasis is on critical thinking and diagnostic reasoning required in accurate health assessments, differentiating normal and abnormal. Prerequisites: MSN admission; basic health assessment (3 credits), NGR 5141.

NGR 5099C Diagnostic and Therapeutics in Advanced Nursing Practice (3). Provides the advance practice nurse/student the theoretical background and clinical applications for diagnostics and therapeutics.

NGR 5110 Theories in Nursing (3). Analysis, evaluation, and application of nursing theories to practice, research, education and administration. Prerequisites: Departmental permission, Graduate standing.

NGR 5135 Legal and Ethical Dimensions of Advanced Nursing Practice (3). Analysis of legal and ethical precepts and application to moral and legal dilemmas in advanced nursing practice focusing on the advocacy role in promoting rights of individuals and families. Prerequisite: Consent of instructor.

NGR 5136 International Nursing System/Advanced Nursing Practice (3). Comparative analysis of philosophical, legal, political, economic and social underpinnings of the nursing progression within the

context of international developments and trends in the post-cold war era.

NGR 5141 Pathophysiologic Basis of Advanced Nursing Practice (3). Focuses on the pathophysiologic basis of clinical judgment and client management in advanced nursing practice. Prerequisites: Graduate standing and permission of the department.

NGR 5168 Complementary and Alternative Therapies in Nursing and Healthcare (3). Provides the theory, practice and patterns of use in complementary and alternative practices and products (CAPPs). Integrates CAPPs knowledge with conventional healthcare using National Institutes of Health NCCAM framework.

NGR 5207 Foundations in Gerontology for Health Professions (3). Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

NGR 5250 Physical Change and Healthy Aging (3). Primary health care and wellness with discussion and assessment of normal physiologic alterations and their relationship to common health concerns and medical problems of the elderly.

NGR 5480 Women and Health: A Nursing Perspective (3). Analysis of the unique health concerns of women across the life span. Emphasizes a multidisciplinary approach. Prerequisite: Graduate standing.

NGR 5604 Culture and Advanced Nursing Practice (3). Theoretical models explanatory of culture and behavior manifestation of cultural diversity. Focuses on multicultural nursing and methodology for nursing care throughout the life span. Prerequisite: Departmental permission.

NGR 5610C Family Theory and Nursing Intervention Across Cultures (3). Students are exposed to selective family theories, family nursing assessment, intervention and evaluation. Culture and economic status and their influence on family structure and processes are addressed. Prerequisites: Graduate status, permission of instructor.

NGR 5632 Practicum in International Family Focused Nursing (1). Students apply learning about nursing care in another country, assessment and intervention with families by instituting a change in their work/practice place at home. Prerequisite: Permission of Instructor.

NGR 5640C Interdisciplinary Health Care Across Cultures (3). The course focuses on health care teams. Types of service, roles and interdisciplinary interaction will be studied as they relate to policies, economics, ethics and ethnic issues in various countries. Prerequisite: Permission of Instructor.

NGR 5660C Leadership and Advocacy for Child and Family Health (3). Acquisition and application of the leadership/advocacy skills with culturally diverse families to improve healthcare in professional/public healthcare settings.

NGR 5723C Advanced Nursing Administration I (4). Analyzes how social/ethical/legal issues, workplace diversity and organizational culture influences nursing management. Strategies for recruitment, retention and

managing human resources are included. Corequisite: NGR 5730C.

NGR 5730C Organizational Dynamics and Nursing Systems (3). Course provides students with a theoretical and experimental understanding of group behavior in organizations. Emphasis is placed on skills to analyze, diagnose and intervene in organization.

NGR 5810 Research Methods in Nursing (3). Research methods and designs commonly used in nursing. Focuses on the research process as it is integrated through the interchange of theory, practice, and research. Prerequisites: Statistics, departmental permission and NGR 5110.

NGR 5832 Applied International Nursing Research (3). Examines and applies international nursing research methods with a focus on global health related to health disparities in underserved populations in health disparities in underserved populations in local, national, and international areas. Prerequisites: IHS 6501 or comparable.

NGR 5871C Nursing Informatics: Computer Mediated Information Technology in Nursing (3). Introduction to principles/practices of computer/information technologies in nursing. Theoretical/applied aspects refined in hands-on lab. Prerequisites: Undergraduate statistics; Permission of the instructor.

NGR 5905 Independent Study in Nursing (1-10). Individually determined, research oriented, in-depth study of a nursing problem or clinical experience as approved by the faculty preceptor. Prerequisites: BSN, Permission of the instructor, and admission to a graduate program.

NGR 5935 Cultural Immersion for International Health Care (1-2). The course introduces basic language, values, social etiquette, daily life, and interpersonal, family and health care patterns in a foreign country in preparation for cross-cultural health study. Prerequisite: Permission of the instructor.

NGR 5936 Special Topics in Nursing (1-6). Group study of a specific topic or a limited number of related topics in nursing. Prerequisite: Must be a nursing student or Florida licensed RN.

NGR 6010 Technology in Anesthesiology Nursing (1). The use and care of anesthesia equipment (mechanical and electronic) are discussed. Computers and their uses in anesthesiology are also included. Prerequisite: Graduate Anesthesiology Tract.

NGR 6011 Chemistry and Physics for Anesthesiology Nursing I (2). Detailed study of the chemical and physical principles which apply to physiology, pharmacology and anesthesia equipment. Emphasis is placed on biochemistry and physics of gases and vapors. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6012 Chemistry and Physics for Anesthesiology Nursing II (1). A continuation of the focus on the biochemical and physical principles required for understanding the mechanisms, actions, equipment and theories as they apply to anesthesia practice. Prerequisite: Graduate Anesthesiology Tract.

NGR 6091 Principles of Anesthesiology Nursing I (2). Broad field orientation to practice. Study of the areas of pre, intra, and post-anesthesia planning and action. The induction and emergence from anesthesia, monitoring and record keeping are included. Prerequisite: Graduate Anesthesiology Tract.

NGR 6092 Regional Anesthesia (2). Theoretical and clinical aspects of the administration and management of regional anesthesia. Anatomy, physiology and pharmacology will be studied/applied to the administration of anesthetic blocks. Prerequisite: Graduate Nurse Anesthesiology.

NGR 6093 Principles of Anesthesiology Nursing II (3). The course will emphasize the anesthetic management of the pediatric, geriatric and obstetrical patient. The course will review the specific anesthetic needs for each specialty. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6094 Principles of Anesthesiology Nursing III (2). Principles of cardiopulmonary anesthesia, preoperative assessment, pre, intra, and postoperative management, extra-corporeal circulation, cardiac assist devices, and pharmacological intervention. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6097 Principles of Anesthesiology Nursing IV (2). The course will emphasize the anesthetic management of the emergency and trauma patient. A review of the assessment process, clinical management, and placement of appropriate monitoring lines. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6098 Advanced Anesthesiology Nursing Seminar (3). Advanced clinical review as presented by the graduate students regarding specific case presentations. The course will serve as a review for the National Certification Examination. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6123 Knowledge Development in Nursing Science (3). This course examines theory development, philosophical inquiry, and ways of organizing nursing knowledge. Attention is directed to inquiry as grounded in languages and cultures. Prerequisite: Departmental permission.

NGR 6144 Advanced Bioscience for Anesthesiology Nursing I (3). Course in human anatomy, physiology, and pathophysiology to include the effects of anesthesia on the cell, the circulatory system, and the respiratory system. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6145 Advanced Bioscience for Anesthesiology Nursing II (3). Study of the anatomy and physiology of the endocrine, excretory, and neurological systems. This will progress to the pathophysiology of these systems with emphasis on the application of anesthesia. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6173 Pharmacology of Anesthesiology Nursing I (1). Pharmacology of drugs affecting the autonomic nervous system as well as anesthetic agents. Administration and doses of the drugs is included. Prerequisite: Graduate Anesthesiology Tract.

NGR 6174 Pharmacology of Anesthesiology Nursing II (2). Course will study the uptake, distribution and biotransformation of anesthetics, including the advanced

study of therapy in anesthesia of specialty areas and treatment of complications. Prerequisite: Graduate Anesthesiology Tract.

NGR 6192 Pharmacological Concepts in Advanced Nursing Practice (3). Principles of advanced clinical pharmacology: development, control, action, physiologic response and therapies. Emphasizes commonly prescribed drugs and implications for Advanced Nursing Practice. Prerequisites: Graduate standing and departmental permit.

NGR 6201C Advanced/Adult Health Nursing I (3). Application of a conceptual model for advanced nursing practice focusing on adult clients in health and/or experiencing minimal-to-moderate alterations in adaptive responses to acute/emergent illness. Prerequisites: NGR 5035C, NGR 5141, NGR 6192. Corequisite: NGR 6201L.

NGR 6202C⁺ Advanced Adult Health Nursing II (3). In-depth study of severe alterations in adaptive responses to chronic and acute multi-system illnesses. Refinement of practice models, integrating theories of nursing and related sciences. Prerequisite: NGR 6201C, NGR 6210L. Corequisite: NGR 6202L.

NGR 6210L⁺ Advanced Adult Health Nursing Practice I (3). Application of a conceptual model for advanced nursing practice focusing on adult clients in health and/or experiencing minimal-to-moderate alterations in adaptive responses to acute/emergent illness. Corequisite: NGR 6201.

NGR 6211L⁺ Advanced Adult Health Nursing Practice II (3). Advanced nursing practice with adult clients experiencing severe alteration in adaptive responses to chronic/acute multi-system illnesses, focusing on comprehensive application of the nursing process. Corequisite: NGR 6202.

NGR 6270L Anesthesiology Nursing Practicum I (1). Introduction to the art and science of anesthesiology nursing. This course presents the basic concepts and introduces the students to the clinical component of the anesthesia management technique. Prerequisite: Graduate Anesthesiology Tract.

NGR 6271L Anesthesiology Nursing Practicum II (2). Clinical anesthesiology correlation conferences on a weekly basis. This clinical component includes the fundamentals of patient interaction under the direct supervision of a CRNA instructor. Prerequisite: Completion Sem. I Anesthesiology.

NGR 6272L Anesthesiology Nursing Practicum III (3). (Include Clinical Case Conference). Case presentations to include the clinical component of anesthesia of progressively advanced cases. The instruction is under the direct supervision of CRNA to include between university semesters. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6273L Anesthesiology Nursing Practicum IV (4). Seminar presentations weekly. Clinical experience: anesthetic management of advanced specialties, including insertion of monitoring lines as appropriate, and progression begin on-call experience. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6274L Anesthesiology Nursing Practicum V (4). Students will incorporate information learned in Practicum I-IV in order to anticipate anesthesia needs for patients in all clinical settings, including post-operative and chronic pain management. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6275L Anesthesiology Nursing Practicum VI (4). Advanced practice to include completion of clinical competencies in all specialty areas. This includes professional conduct of the advanced practitioner to include knowledge of advance practice role. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6276L Anesthesiology Nursing Practicum VII (4). Course in which a graduate functions as the primary nurse anesthetist, and the instructor as a consultant. Experience will be provided with management within the department of anesthesiology. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6301C Advanced Child Health Nursing I (3). Development of a conceptual model for family-centered nursing of children, increasing the breadth and depth of students' theoretical foundation unique to the specialty area. Prerequisites: NGR 5035C, NGR 5141, and NGR 6192. Corequisite: NGR 6301L.

NGR 6301L⁺ Advanced Child Health Nursing Practice I (3). Application of a conceptual model for advanced nursing practice focusing on health states and adaptive alterations of children observed in primary care settings. Corequisite: NGR 6301C.

NGR 6302L⁺ Advanced Child Health Nursing Practice II (3). Application of a refined conceptual model for advanced nursing practice focusing on family-centered care of children requiring complex technological care and/or multidimensional rehabilitation. Corequisite: NGR 6303C.

NGR 6303C Advanced Child Health Nursing II (3). Extension and refinement of students' theoretic foundation focusing on family-centered care of children requiring high level technological care and/or multidimensional rehabilitation. Prerequisites: NGR 6301C, NGR 6301L. Corequisite: NGR 6303L.

NGR 6306 Clinical Decision Making in Advanced Child Health Nursing (3). Critical analysis of clinical decision making in advanced child nursing. Synthesis of learning in recognizing similarities, differences, and contextual factors related to the diagnosis and management of diseases and injuries. Prerequisites: NGR 6301C, NGR 6301L or NGR 6303C, NGR 6302L.

NGR 6306L Role Synthesis in Advanced Child Health Nursing Practice (4). Advanced child health nursing role with diverse client population. Role developed through contractual agreements with faculty and mentors. Prerequisites: NGR 6301C, NGR 6301L, NGR 6303C, NGR 6302L.

NGR 6333 Conceptual Issues in Nursing Management of Developmental Disabilities (3). Study of developmental theories, concepts and research findings in context of nursing model. Problems relevant to nursing intervention are examined through critique of pertinent

literature. Corequisites: Graduate standing and permission of the department.

NGR 6502C Advanced Psychiatric-Mental Health Nursing I (3). Development of an advanced practice nursing model in psychiatric-mental health across settings and populations. Prerequisites: NGR 5035C, 5141, NGR 6192. Corequisite: NGR 6503L.

NGR 6503L Advanced Psychiatric-Mental Health Nursing Practice I (3). Management of psychiatric mental health disorders in time-limited and extended care therapies in collaboration with health care providers across delivery systems. Blends the ARNP/CNS. Corequisite: NGR 6502.

NGR 6504C Advanced Psychiatric-Mental Health Nursing II (3). Continued development of advanced practice nursing model in the psychiatric care of individuals, groups and families across settings and populations. Prerequisites: NGR 6502C, NGR 6503L. Corequisite: NGR 6507L.

NGR 6505L Role Synthesis in Advanced Psychiatric-Mental Health Nursing Practice (4). Advanced psychiatric/mental health nursing role with diverse population. Role developed through contractual agreements with faculty and mentors. Prerequisites: NGR 6502C, NGR 6503L, NGR 6504C, NGR 6507L.

NGR 6507L Advanced Psychiatric-Mental Health Nursing Practice II (3). Application of advanced practice nursing model with clients who have complex psychiatric problems or are at high risk. Collaborative process in therapy, consultation, and planned change. Corequisite: NGR 6504C.

NGR 6538 Psychopharmacology for Advanced Practice Nursing (3). Background for neurobiological pharmacologic, psychiatric, and age dynamic factor to advanced practice nurse prescribing of psychiatric medications. Prerequisite: Advance to Semester III in graduate program.

NGR 6601C Advanced Family Health Nursing I (4). Specialization, expansion, and advancement of research based knowledge and skills fundamental to the advanced practice of family nursing in primary care. Prerequisites: NGR 5035C, NGR 6192, NGR 5141. Corequisite: NGR 6601L.

NGR 6601L Advanced Family Health Nursing Practice I (4). Clinical management of common problems of children and selected diseases of adults in advanced nursing practice, the family being the unit of service. Blends the FNP/CNS role in delivery of primary health care. Corequisite: NGR 6601C.

NGR 6602C Advanced Family Health Nursing II (4). Continuing development of specialized knowledge and skills critical to the blended FNP/CNS role in primary health care. Refinement of a nursing model of practice, the family as unit of service. Prerequisites: NGR 6601C, NGR 6601L. Corequisite: NGR 6602L.

NGR 6602L Advanced Family Health Nursing Practice II (4). Clinical management of multisystem problems of children and adults commonly seen in primary care settings. Further development of the blended FNP/CNS

role with the family as unit service. Corequisite: NGR 6602.

NGR 6619L Role Synthesis in Advanced Family Health Nursing Practice (4). Advanced family health nursing role with diverse client population. Role developed through contractual agreements with faculty and mentors. Prerequisites: NGR 6601C, NGR 6601L, NGR 6602C, NGR 6602L.

NGR 6704L Role Synthesis in Advanced Adult Health Nursing Practice (4). Advanced adult health nursing role with diverse client population. Role developed through contractual agreements with faculty and mentors. Prerequisites: NGR 6201C, NGR 6210L, NGR 6202C, NGR 6211L.

NGR 6708C Classroom Teaching Strategies for Nursing (3). Provides experience/seminar in classroom teaching for prospective nurse educators. Focuses on strategies for effective course planning, organization, delivery, and evaluation of teaching-learning in the classroom setting. Prerequisites: NGR 6713, ADE 5386, ADE 6360.

NGR 6710 Role Synthesis in Nursing Education (4). Application of teaching/learning theories to nursing and selected teaching/learning strategies. Demonstration of various teaching strategies. Teaching practicum. Prerequisites: NGR 6713 and NGR 6211L, or NGR 6507L, or NGR 6302L or NGR 6602L.

NGR 6712C Advanced Nursing Administration III (4). Intensive practicum applying leadership, decision-making, management, and administration theories and concepts under the guidance of a nurse executive preceptor and supervising faculty. Prerequisites: NGR 6726C, NGR 5871C, HAS 6176, PHC 6443, NGR 5723C, NGR 6724C.

NGR 6713 Curriculum Development in Nursing (3). Curriculum theory and its application in nursing education. Curriculum construction, implementation, and evaluation are discussed from theoretical, philosophical, historical, and current perspectives. Prerequisites: Graduate standing and departmental permission, NGR 5110.

NGR 6714C Clinical Teaching Strategies for Nursing (3). Provides experience and seminar in clinical testing. Focuses on application of research-based literature and best practices in the development/ implementation/ evaluation of clinical education for nursing students. Prerequisites: NGR 6713, ADE 5386.

NGR 6715 Instructional Technology in Nursing and Health Sciences (1). Provides advanced technological knowledge, skills, and opportunity to develop strategies using technology to improve and enhance student learning in variety of settings. Prerequisites: NGR 6713, ADE 5386.

NGR 6724C Advanced Nursing Administration II (4). Discusses financial issues surrounding nursing and the development and refinement of budgeting skills. Included are the nurse as entrepreneur, marketing, budgets and computers in financial management. Prerequisite: NGR 5723C (Adv. Nsg. Adm. I). Corequisite: HSA 6176.

NGR 6725 Issues and Strategies of Nursing Administration (3). Analysis of issues, principles, and concepts of nursing administration. Includes synthesis of behavioral and organizational theories with institutional

goals in formulation of administrative strategies. Prerequisites: Graduate standing and departmental permission.

NGR 6726C Nursing Management and Continuous Quality Improvement (3). Role of nurse managers in developing and implementing continuous quality-improvement programs; implications of such programs on health care delivery. Includes role of middle management in personnel development and promoting nursing research in the clinical arena. Corequisites: NGR 6211L, or NGR 6507L, or NGR 6302L.

NGR 6760 Professional Aspects of Anesthesiology Nursing (1). This course explores: American Association of Nurse Anesthetists, Councils on Accreditation, Certification and Practice and Professional issues for the practice model of Anesthesiology in Nursing. Prerequisite: Graduate Nurse Anesthesiology Tract.

NGR 6800 Advanced Nursing Research Methods I: Design and Sampling (3). The first course in a 2-course sequence on the design and conduct of nursing research focuses on the conceptual and empirical basis, design, sampling, and ethical conduct of nursing research. Prerequisite: Departmental Permission.

NGR 6801 Advanced Nursing Research Methods II: Measurement and Dissemination (3). The second course in a 2-course sequence on the design and conduct of nursing research focuses on measurement in nursing research, data management and analysis, and dissemination of findings. Prerequisite: NGR 6800.

NGR 6812 Master's Research (3). Refinement of research proposals focusing on methodology and pilot study. Hands-on experience on computerized data analysis. Prerequisites: HSC 6910 or NGR 5810.

NGR 6815 Qualitative Methods (3). Critical issues, theoretical and practical applications for conducting qualitative research explored as they relate to health, social service and public administration environments. Prerequisites: PHC 6704 or NGR 5810. Corequisite: NGR 6123.

NGR 6910C Research Project (3). Development of competency in scientific inquiry for non-thesis students through participation in an ongoing research project. Prerequisites: IHS 6501 or NGR 5810, NGR 5110.

NGR 6917 Grantsmanship I (1). The first course in a 3-course series on development and funding of programs of research focuses on successful research programs, planning a research trajectory, and obtaining predoctoral funding. Prerequisite: Departmental permission.

NGR 6918 Grantsmanship II (1). The second course in a 3-course series on development and funding of programs of research focuses on refinement of student trajectories, and grantsmanship for small research grant funding. Prerequisite: Departmental permission.

NGR 6919 Grantsmanship III (1). The third course in a 3-course series on development and funding of programs of research focuses on grantsmanship for major research funding targeted to federal and major foundation sources. Prerequisite: Departmental permission.

NGR 6939C NSG Management of At-Risk Populations (6). Intensive practicum and seminar in management of high-risk populations focusing on the elderly, or persons with HIV/AIDS, or survivors of domestic violence, or any other targeted high-risk group. Prerequisites: Departmental permit. Corequisites: NGR 6601L/NGR 6210L.

NGR 6970 Master's Thesis I (3). Refinement of research proposals focusing on methodology and pilot study. Hands-on experience on computerized data analysis. Completion of a research project for non-thesis students. Prerequisite: NGR 5810. Corequisites: NGR 6211L or NGR 6507L or NGR 6302L.

NGR 6971 Master's Thesis II (3). Implementation through completion of student's research thesis proposal. Prerequisite: NGR 6970.

NGR 7736 Academic Health Care and Political Systems: Function, Structure Leadership and Survival. (3). Analyzes purpose, structure, function, challenges, politics of academic, health care and political systems. Examines leadership roles, strategies for change and dealing with organizational politics. Departmental permission.

NGR 7830 Research in Health Care for Multicultural Diverse and Vulnerable Populations (3). The course focuses on research issues with multicultural, diverse, and vulnerable populations. Prerequisite: Departmental permission.

NGR 7873 Accessing, Managing and Packaging Information (3). Focuses on finding, obtaining, evaluating, managing, and disseminating information from the internet and other sources, and packaging information to convey a message and maximize the impact using current technology. Prerequisite: Departmental permission.

NGR 7980 Dissertation I (1). Provides an overview of the dissertation process within framework of completing the dissertation. Prerequisite: Admission to candidacy.

NGR 7981 Dissertation II (6-9). Development and writing of an original research project under the supervision of the major professor and dissertation committee. Prerequisite: Admission to dissertation candidacy.

NUR 5495 Women's Health Issues (3). This course is designed to acquaint the student with selected conditions impacting the health of women.

*All students must provide evidence of personal professional liability insurance prior to registering for any clinical nursing courses.

Occupational Therapy

Alma Abdel-Moty, Chairperson, Clinical Associate

Professor and Undergraduate Coordinator

Elise Bloch, Clinical Assistant Professor

Amy Paul-Ward, Assistant Professor

Pamela Shaffner, Clinical Associate Professor and
Graduate Coordinator

Agnes Sheffey, Clinical Assistant Professor and Clinical
Coordinator

Mirtha Whaley, Assistant Professor

Master of Science in Occupational Therapy

The profession of Occupational Therapy (OT) is a health profession which prepares practitioners to develop and restore the functional performance abilities needed for individuals experiencing disease and disability to lead satisfying productive lives. Occupational therapy may be indicated for persons whose lives have been interrupted by disease or injury, or those who suffer from developmental delays, mental illness or problems associated with aging.

Occupational therapists assess individuals' abilities to carry out tasks and activities necessary to enable function for productive living. Working collaboratively with clients, considering their personal goals, lifestyles, and environments, the therapist develops intervention programs designed to help develop/restore the greatest possible functional capacity. During the treatment or rehabilitation process, the clients actively engage in directed programs of purposeful, meaningful activities designed to increase their levels of functioning. The occupational therapist works collaboratively with individuals, other health professionals, and health and community agency personnel. A successful therapist must be able to work with others, look at the totality of human performance, think creatively, problem solve, and direct the actions of others. Occupational therapists serve a wide variety of individuals in all age ranges and work in settings such as community agencies, sheltered workshops, hospitals, schools, skilled nursing centers, rehabilitation centers, and home health.

There are three ways to earn the Master of Science in Occupational Therapy. They are as follows:

1. **Professional Masters** – this is a seven semester full time program designed for students with BS degrees in fields other than occupational therapy.
2. **BSHS OT Track/MS** – this four semester MS program is designed for graduates of the FIU BS in Health Sciences, Occupational Therapy Track.
3. **Post Professional MS** – this program is designed for occupational therapists who achieved initial NBCOT certification and/or licensure in Occupational Therapy at the BS level.

As of January 2007 successful completion of a post baccalaureate degree program (MS) is required in order to qualify an individual to sit for the National Board for Certification in Occupational Therapy (NBCOT) certification examination. Students should visit the Occupational Therapy Department website at <http://ot.fiu.edu> for current information.

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy

Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Graduates of the program will be able to sit for the national certification examination for occupational therapists administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice. Your eligibility for state licensure or certification may be at risk if you have been convicted or found guilty, regardless of adjudication which directly relates to the practice of occupational therapy or to the ability to practice occupational therapy. A plea of nolo contendere shall be considered a conviction for the purposes of this part. Applicants to the Occupational Therapy program are required to submit state and federal background checks at the time of admission into the program. Findings in background checks may affect a student's ability to participate in clinical experiences needed to complete the program, and to obtain licensure.

Advising

Group advising sessions are held on a regular basis during the semester; the dates are posted on the department website, <http://ot.fiu.edu>. If you have specific questions related to your application, the OT advisor will answer them during the session. All applicants who live in Miami-Fort Lauderdale area are expected to attend an advising session. Students who live outside the area can call the OT department at (305) 348-6068 and ask to speak with an advisor.

Application Process

Applicants must complete the following steps in order to be considered for admission:

1. Complete two applications as indicated and return to the appropriate offices:
 - a. Complete a FIU graduate admissions application online available at <http://gradschool.fiu.edu>.
 - b. Complete an application for the graduate Occupational Therapy Track you are seeking admission to and send to the Occupational Therapy Department, University Park Campus, HLS 1, Room 248, 11200 SW 8th St., Miami, Florida 33181 available at <http://ot.fiu.edu>.
2. Request an official transcript of records from each college or university attended for undergraduate and graduate work. A transcript must be sent to both 1) Florida International University, Office of Graduate Admissions, P.O. Box 659004, Miami, Florida 33265-9004 and 2) the Occupational Therapy Department.
3. Meet the specific requirements for the MS Track you are applying to. (see MS program descriptions).

NOTE: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's and College's various publics and to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, and other regulatory and accrediting agencies. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations. Please refer to <http://ot.fiu.edu> for latest information on the OT program, policies, and procedures.

The Professional Masters

The Professional Masters consists of two parts:

1. 40 credits of core courses preparing those students with a BS in another field of study, who have completed the necessary prerequisites, to develop skills in clinical practice, and clinical decision making.
2. 42 MS credits which add clinical internship and the components needed for engagement in evidence based practice, leadership in professional practice, and research, all needed to meet the current demands on today's health care professionals.

The core courses are taken concurrently with the Master of Science in Occupational Therapy.

Application Deadline Applications are accepted starting January 15th for fall admission. Early decisions are made by March 1; however, applications are accepted until all positions are filled. Interested students are encouraged to apply early to secure acceptance. Classes start in the Fall.

Prerequisites for the Professional MS degree

1. Biology and lab 3-4
or Anatomy/Physiology I and II with labs 6
(students who have completed Anatomy/Physiology I and II with labs have met the prerequisites for Biology with lab, but not Anatomy)
2. Physiology (3 credits) or Anatomy/Physiology I and II with labs 6
(students who have completed Anatomy/Physiology I and II with labs have met the prerequisites for Physiology, but not Anatomy)
3. Theories of Personality 3
4. Abnormal Psychology 3
5. Human Growth and Development 3
6. Statistics (STA 6166 Statistical Methods I preferred) 3
7. Human Anatomy with lab¹ 4
8. Neuroscience^{1,2} 4

¹These courses must be numbered 3000 or above.

²If not taken as prerequisite, may be taken after admission to the master's program.

Required Courses for Professional Masters in OT

Professional Master's Course Sequence***

Fall (Year 1)

OTH 5011	Theories & Practice of O.T.	3
OTH 5162	Adaptation of Human Occupation	3
OTH 5202	Occupational Development: Infancy Throughout Adolescence	2
OTH 5202L	Occupational Development: Infancy Throughout Adolescence Lab	1
OTH 5303	Occupational Development: Adulthood and Aging	3

Spring (Year 1)

OTH 5414	Analysis & Adaptation Human Motion	3
OTH 5414L	Analysis & Adaptation Human Motion Lab	1
HSC 4553	Fundamentals of Pathology	3
OTH 4701	Professional Issues OT	2
OTH 6772	Evidence Based Practice and Critical Appraisal*	3

Summer (Year 1)

Clinical Core OT Elective*	3
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OTH 5760	Current Research in Occupational Therapy	3
OTH 5751	Rehabilitation Seminar*	3
(includes 1 month fieldwork)		

Fall (Year 2)

OTH 4504	Neuromotor Approaches in OT I	3
OTH 4504L	Neuromotor Approaches in OT I Lab	1
OTH 5429	Biomechanical & Rehab App in OT	3
OTH 5429L	Biomechanical & Rehab App in OT Lab	1
OTH 6009	Current Issues and Theories of Occupational Therapy*	3
OTH 6972	Master's Project	3
Clinical Core OT Elective*		3

Spring (Year 2)

OTH 4423	Neuromotor Approaches in OT II	3
OTH 4423L	Neuromotor Approaches in OT II Lab	1
OTH 6973	Master's Project	3
OTH 5725	Infusing Occupation into Community Based Practice*	3
OTH 5324	Clinical Intervention for Persons with Neuropsychiatric & Cognitive Disorders	4
OTH 6706	Occupational Therapy Management*	3

Summer (Year 2)

OTH 5845	Level II Fieldwork	6
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Fall (Year 3)

OTH 5846	Level II Fieldwork	6
OTH 6215	Advanced Occupational Therapy Intervention Strategies*	3

*Offered Online

** Can be taken prior to starting the program

*** Curriculum and sequence may be changed by department

MS for Graduates of FIU BSHS/Pre OT Track

Students are eligible for this program after completion of the FIU BSHS Pre OT track. Students must have a 3.0 GPA to be admitted to the MS program.

Application Deadline Students need to apply by March 1 of their senior year of the FIU BSHS program.

Required Courses: (42 credits)

OTH 6009	Current Issues and Theories of Occupational Therapy	3
OTH 6772	Evidence Based Practice and Critical Appraisal (taken senior year of BSHS)	3
OTH 6215	Advanced Occupational Therapy Intervention Strategies	3
OTH 6706	Occupational Therapy Management	3

Research Core

OTH 5760	Current Research in Occupational Therapy	3
OTH 5725	Infusing Occupation into Community Based Practice	3
OTH 5845	Level II Fieldwork	6
OTH 5846	Level II Fieldwork	6
OTH 6972	Master's Project	3
OTH 6973	Master's Project	3
Clinical Core Electives		9

*An undergraduate student who maintains a minimum 3.25 GPA may take up to 12 graduate credits prior to the completion of the BSHS OT Track degree.

Post Professional Master of Science: fully on-line (36 credits)

The Post Professional MS degree is designed for therapists who achieved initial NBCOT certification in Occupational Therapy at the BS level. This program is 36 credit hours. This curriculum can be taken fully on-line.

Application Deadline These is no deadline for the MS on line. Registered therapists can apply at any time and start any term.

Admission Requirements

To be admitted to the Post Professional Master's degree program students must:

1. Hold a Bachelor's degree in Occupational Therapy from an accredited institution and achieved initial NBCOT Certification in Occupational Therapy at the BS level.
2. Have a minimum of 3.0 GPA average based on a 4.0 scale in upper division courses of the Bachelor's degree.
3. Have a basic statistics course (STA 6166 Statistical Methods I is preferred).
4. Provide three letters of reference, a curriculum vitae/resume, a summary statement of professional and educational goals and assessment of current professional activities.
5. Receive approval from the departmental graduate admissions committee.
6. International students are accepted subject to space and fiscal limitations. Students must have a Bachelor's degree or equivalent in occupational therapy from an institution recognized in their own country as preparing students for graduate level study; academic eligibility for further study in their own country. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Degree Requirements

The Post Professional Master of Science in Occupational Therapy consists of 36 credits including 6 hours of a master's research project (thesis option). Fifteen credits of core courses must be taken in the department plus a minimum of six credit hours of thesis or project.

A maximum of six credits of graduate course work may be transferred from other institutions, provided they meet university requirements, subject to the approval of the departmental graduate committee.

Required Courses: (36 credits)

Occupational Therapy Core

OTH 6009	Current Issues and Theories of Occupational Therapy	3
OTH 6772	Evidence Based Practice and Critical Appraisal	3
OTH 6215	Advanced Occupational Therapy Intervention Strategies	3
OTH 6706	Occupational Therapy Management	3

Research Core

OTH 5760	Current Research in Occupational Therapy	3
OTH 5725	Infusing Occupation into Community Based Practice	3
OTH 6972	Master's Project	3

or

OTH 6970 Master's Thesis (option) 6

Clinical Specialty Component

Combination of Occupational Therapy and University electives in an identified area of clinical interest approved by the faculty. 12

Course Descriptions

Definition of Prefixes

GEY - Gerontology

OTH - Occupational Therapy

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

GEY 5005C Issues in Gerontology for Health Professions (3). This course examines social, economic, and demographic issues challenging older adults and health care professionals providing services to this age group.

GEY 5600 Physical Change and Healthy Aging (3). Primary health care and wellness with discussion and assessment of normal physiological alterations and their relationship to common health concerns and medical problems of older adults.

OTH 5002 Occupation and Health (3). Concepts of purposeful activities, occupation, and health will be explored in relation to self and the OT profession.

OTH 5011 Theories and Practice of Occupational Therapy (3). The theoretical foundations of occupational therapy and issues affecting professional practice. (SS)

OTH 5162 Adaptation of Human Occupation (3). Through development of an understanding of the components and nuances of human occupation, students will develop skills needed to promote optimal performance through simulation and adaptation of life tasks. (SS)

OTH 5195 Occupational Therapy Job Modification (3). Analysis and adaptation of client's workplace for the disabled. Prerequisites: Admission to program or permission of the instructor (occasional elective).

OTH 5202 Occupational Development: Infancy Throughout Adolescence (2). Occupation during infancy, childhood, and adolescence. Includes social, cultural, and environmental factors on occupational competence. (F)

OTH 5202L Occupational Development: Infancy Through Adolescence Lab (1). Laboratory to accompany OTH 5202, Occupational Development Throughout the Life Span. Corequisite: OTH 5202.

OTH 5203 Occupational Development: Adulthood and Aging (3). Exploration of occupational development from young adulthood through the geriatric years.

OTH 5213 Pediatric Seminar: School Based Occupational Therapy (3). Course designed to provide students with necessary skills and specific knowledge to practice occupational therapy effectively in the educational setting. One week fieldwork. Interdisciplinary classes with physical therapy. Prerequisite: Permission of the instructor.

OTH 5214 Occupational Therapist Role in Family Centered Care (3). Course designed to orient O.T. students to family-centered care issues, such as legislation, cultural issues, family systems and

empowerment strategies, in order to prepare them for clinical practice. Prerequisite: Permission of the instructor.

OTH 5280 Role of Environment in Occupational Therapy (3). Assessing the influence of environmental factors on OT practice in specific field settings. Prerequisite: Admission to program.

OTH 5324 Clinical Intervention for Persons with Neuropsychiatric & Cognitive Disorders (4). Develops clinical reasoning abilities in the selection of assessment and treatment strategies for individuals with cognitive and neuropsychiatric disorders. (S)

OTH 5326 Psychiatric O.T.: Contemporary Theory and Practice (3). Examination of contemporary knowledge relevant to the theory and practice of O.T. in psychiatry. Prerequisites: Admission to Program or permission of the instructor.

OTH 5345 Occupational Therapy Program Development in Psychiatry (3). Seminar discussion and practical experience in OT programming in psychiatry. Prerequisites: Admission to program or permission of the instructor.

OTH 5360 Social Justice Issues for Health Professionals (3). An examination of relevant social justice related theories for health professionals leading to an understanding of how therapists can empower persons with disabilities to navigate the health system.

OTH 5405C Analysis of Therapeutic Procedures in Physical Disabilities (3). A lecture/lab course designed to introduce advanced students to theory based assessment problem identification and treatment for the physically disabled adult.

OTH 5406 Sensory Problems and Therapeutic Implications (3). An in-depth study of sensory problems and the implications for therapy. A variety of patient populations and clinical applications will be discussed. Prerequisites: Graduate standing or permission of the instructor (occasional elective).

OTH 5407 Theoretical Perspectives of Pain (3). Theoretical perspectives of pain: etiology, assessment, management and effects. Prerequisites: Admission to the program or permission of the instructor (occasional elective).

OTH 5414 Analysis & Adaptation in Human Motion (3). Presents anatomical, physiological, and biomechanical principles of human motion & biomechanical frame of reference in adaption with biomechanical problems. (F)

OTH 5414L Analysis & Adaptation in Human Motion Lab (1). Laboratory to accompany OTH 5414, Analysis & Adaptation of Human Motion in OT. (F)

OTH 5427 Neurorehabilitation Approaches in OT (3). OT evaluation procedures and treatment planning for patients with CNS dysfunction. Prerequisites: PHT 4160 or equivalent. Corequisite: OTH 5427L.

OTH 5427L Neurorehabilitation Approaches in OT Lab (1). Laboratory to accompany OTH 5427, Neurorehabilitation Approaches in OT. Prerequisites: PHT 4160 or equivalent. Corequisite: OTH 5427.

OTH 5429 Biomechanics & Rehabilitative Approaches in OT (3). Biomechanics and rehabilitative frames of reference as they focus on body parts and occupational performance.

OTH 5429L Biomechanics & Rehabilitative Approaches in OT Lab (1). Lab to accompany OTH 5429 Biomechanics & Rehabilitative Approaches.

OTH 5440 Treatment Approaches for the Neurologically Impaired (3). In depth instruction in approaches to the neurologically impaired patient. Emphasis will be on dysfunction due to stroke or head injury. Prerequisites: OTH 4422 or equivalent.

OTH 5503 Current Occupational Therapy Practice in the Neonatal Intensive Care Unit (3). Theoretical framework and guidelines for assessment and intervention in a neonatal intensive care unit. Prerequisite: Majors only.

OTH 5505 Pediatric Health and Dysfunction in Occupational Therapy (3). Investigation of pediatric health and dysfunction issues encountered by Occupational Therapists. Corequisite: OTH 5505L.

OTH 5505L Pediatric Health and Dysfunction in OT Lab (1). Laboratory to accompany OTH 5505, Pediatric Health and Dysfunction in Occupational Therapy. Corequisite: OTH 5505.

OTH 5600 Study of Gerontology as Related to Occupational Therapy (3). An overview of current issues in the practice of occupational therapy for the aged.

OTH 5603 Role of Occupational Therapist in Family Centered Care of Elderly (3). Issues related to caregiving of elder and caregivers including autonomy, cultural influences and family systems. Prerequisite: Permission of the instructor.

OTH 5610 Foundations in Gerontology for Health Professions (3). Implication for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

OTH 5613 Interdisciplinary Approach to Aging (3). Issues related to roles of specific health team members and application of interdisciplinary approach to care of the elderly. Prerequisites: Aging course or work experience with elderly, permission of the instructor.

OTH 5630 OT Assessment of the Elderly (3). Study of assessment techniques appropriate for OT evaluation of the elderly. Prerequisite: Admission to program.

OTH 5725 Infusing Occupation into Community Based Practice (3). The evaluation and promotion of community based programming to serve non-traditional client populations.

OTH 5751 Rehabilitation Seminar in Occupational Therapy (3). A seminar designed to gain an understanding of OT clinical practice areas in rehabilitation. Various clinicians will present their perspectives of organizational structure, populations served, evaluation and treatment approaches. Prerequisite: Permission of the instructor.

OTH 5760 Current Research in Occupational Therapy (3). Review of statistical concepts and research

procedures in the clinical setting, with in-depth study of the current status of research in occupational therapy. (S)

OTH 5764 Research in a Clinical Speciality (3). Participation in ongoing research of faculty members in clinical speciality area. Prerequisite: Permission of the instructor. (SS)

OTH 5765 Research in Clinical Practice (3). Students identify a research topic and questions based on observation of clinical problems during field visits.

OTH 5805 Service Learning in Health (3). Student's learning is centered on a community service experience which meets specific principles of service learning. Prerequisites: Admission to graduate study in OT. (Other graduate students or graduate certificate students in aging admitted by permission of the instructor.)

OTH 5840 Fieldwork Level I (3). Practicum fieldwork experience in an approved setting.

OTH 5845 Fieldwork Level II (6-12). Three-month internship in an approved setting. Prerequisite: Completion of didactic coursework.

OTH 5846 Fieldwork Level II (6-12). Three-month internship in an approved setting. Prerequisite: Completion of didactic coursework.

OTH 5849 Fieldwork Experience (1-20). Internship in a specialized treatment setting. Prerequisite: Completion of didactic coursework.

OTH 5905 Independent Study (Variable Credit). (F,S,SS)

OTH 5934 Evaluation and Treatment of Hand Dysfunction (3). Seminar in current issues related to the assessment and treatment of common injuries of the hand (occasional elective).

OTH 5938 O.T. Theoretical Perspectives in Health Therapy (3). This seminar course is designed to examine the OT's role in the prevention of both physical and mental diseases. It will demonstrate and discuss how OT foundational under-pinnings provide the tools therapists need to guide patients and clients toward lifestyle behaviors which can prevent or delay disease onset and foster functional adaptation. Prerequisite: Permission of the instructor.

OTH 6009 Current Issues and Theories of Occupational Therapy (3). Exploration of current issues and theories in occupational therapy leading to development of student's theoretical reference for practice. Prerequisite: Admission to the program.

OTH 6106 The Role of Occupational Therapy and Assistive Technology (3). This course provides the student with in-depth information about assessment for AT and recommendation of appropriate equipment.

OTH 6215 Advanced OT Intervention Strategies (3). Principles and characteristics of treatment regimens designed to enhance the study of treatment effectiveness. Emphasis on application of activity appropriate for student's clinical concentration. Prerequisite: Admission to program. (F)

OTH 6265 Measurement and Assessment in Occupational Therapy (3). Measurement concepts and

practices used in occupational therapy evaluation. Prerequisites: Admission to program or permission of the instructor.

OTH 6507 Occupational Therapy for Occupationally Dysfunctional Children & Adolescents (3). Exploration of factors leading to successful adaptation to occupational roles, are explored with particular emphasis on the relationship between these factors and Occupational Therapy theory. Prerequisite: Permission of the instructor.

OTH 6538 Advanced Methods in Pediatric Assessment (3). Advanced applications of theory and research in the area of pediatric occupational therapy assessment. Skills in neonatal, neurodevelopmental, occupational behavior, and computer-assisted methods.

OTH 6542 Role of the Occupational Therapist in the School System: A Consultation Model (3). Course introduces consultation as a viable service provision option to enable occupational therapists to create more effective living and learning environments on behalf of children. Prerequisite: Permission of the instructor.

OTH 6548 Advanced Methods in Pediatric Occupational Therapy (3). Advanced application of theory and research in occupational therapy. Includes neurodevelopmental treatment approaches, neonates through adolescents. Prerequisite: OTH 6538.

OTH 6706 Occupational Therapy Management (3). Study of administrative issues in OT in relation to licensing, certification, documentation, supervision, and professional roles.

OTH 6772 Evidence Based Practice and Critical Appraisal (3). An in-depth investigation of the tools and resources for systematically locating and reviewing research evidence.

OTH 6937 ADA Workplace Accommodations of Persons with Disabilities (3). Interdisciplinary course designed to bring together students of both rehabilitation and business/management disciplines to develop strategies to implement the Title I-Workplace provision of the Americans with Disabilities Act. (ADA).

OTH 6948 Continuing Clinical Competence for Occupational Therapists (3). Design, execution, and presentation of a major Occupational Therapy project.

OTH 6970 Master's Thesis (1-6). Supervised research on a research project submitted in partial fulfillment of Master's degree requirement. Prerequisite: Permission of major professor. (F,S,SS)

OTH 6972 Master's Project Development (3). Development and planning of Master's Project.

OTH 6973 Master's Project Implementation (3). Implementation and completion of the Master's Project. Prerequisite: OTH 6972.

Physical Therapy

Leonard Elbaum, Associate Professor and Chair

Steven Bernstein, Clinical Assistant Professor

Martha Bloyer, Clinical Assistant Professor & Director of
Clinical Education

Helen Z. Cornely, Associate Professor

Lisa Roberts, Clinical Assistant Professor

Colleen Rose-St. Prix, Associate Professor

Mark Rossi, Assistant Professor

Marlon Wong, Clinical Assistant Professor

About the Department

The Department of Physical Therapy is part of the **College of Nursing and Health Sciences**.

The Mission of the Physical Therapy Department is to meet the physical therapy needs of the local, state, national, and international community by:

- providing entry level and advanced physical therapy education,
- advancing the knowledge base of physical therapy,
- providing the community with an ethnically and racially diverse group of physical therapy practitioners poised to help eliminate health disparities by providing culturally competent health care.

The curriculum is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), and has been since its inception in 1975, allowing graduates of the program to apply for licensure as Physical Therapists throughout the United States. The 25-year licensure examination pass rate is over 95%.

The department occupies over 6,000 square feet of offices and laboratories on the University Park Campus of FIU. The departmental inventory includes the full range of clinical equipment used by practicing physical therapists, and is continually updating equipment to support faculty and student research projects. The Kinesiology Laboratory houses several state of the art computer systems with the capability to analyze human movement with high speed digital video, force sensors, and surface electromyography.

There are 9 full-time faculty members, and numerous adjunct faculty. Collectively, the faculty possess well over 100 years of teaching, research, and clinical experience.

The clinical and research interests of the faculty range from pediatrics to geriatrics, and from neuroscience to biomechanics.

The faculty prides itself on its intellectual, cultural, racial, and ethnic diversity. There are approximately 150 students in the department.

Academic Program

The department offers only one program of study; a three-year, 113-credit program leading to Doctor of Physical Therapy (DPT) degree. In contrast to a PhD (Doctor of Philosophy) program that emphasizes research, the DPT is a clinical doctorate, similar to an MD (Medical Doctor) or a JD (Juris Doctor).

Advanced standing in the program may be granted on a case-by-case basis to health care practitioners who already hold undergraduate or graduate degrees in physical therapy or a closely related field.

The DPT program is rigorous, and is recommended only for highly motivated students with proven records of

success as undergraduates. Admission to the program is limited to approximately 48 students per year.

Upon completion of this program, students will be eligible to apply for licensure as a Physical Therapist anywhere in the United States and several other jurisdictions.

Minimum Admission Requirements:

- A Bachelor's Degree.
- A GPA of 3.0 in the last 60 hours of the undergraduate coursework.
- Completion of at least 40 hours of observation, volunteering, or employment in related to physical rehabilitation.
- Completion of the following prerequisites courses:

Courses

Courses	Cr
Chemistry with laboratories	8-10
Developmental Psychology	3
General Biology and Lab	4
Human Anatomy**	3
Human Physiology or Exercise Physiology	3
Physics with laboratories	8-10
Psychology	3
Statistics	3
Medical Terminology	3

**Three credits are required, but 8 credits (6 Lecture, 2 Laboratory) of Human Anatomy with cadaver dissection highly recommended (eg. ZO04733, 4733L, 3731 and 3731L at FIU).

Advising, Application and Admission Processes

Prospective students are assigned to faculty advisors based on the first letter of their surname. Please refer to the departmental website to obtain the name and contact information for your advisor.

The application and admission process is composed of two parts:

- First, students must apply for admission to the University Graduate School, and meet all University-wide standards for admission, including specific requirements for graduates of non-US institutions if applicable. This process is entirely online, and is described elsewhere in this catalog, and at <http://gradschool.fiu.edu/admissions.html>.
- Second, applicants must submit a supplemental application directly to the Department of Physical Therapy. Instructions are available from the departmental office or website: <http://physicaltherapy.fiu.edu>.

Admission to the program is highly competitive. The Departmental Admissions Committee selects students based primarily on their record of academic performance, although evidence of non-academic outstanding personal qualities is also considered.

Deadlines

There is only one admission cycle per year. Both parts of the application process must be completed by January 15 in order to be eligible for admission for the Fall term.

Program of Studies

Fall Semester 1: (12 credits)

PHT 5174	Analysis of Movement and Function	3
PHT 5174L	Analysis of Movement and Function Lab	1

PHT 5180	Musculoskeletal Diagnosis and Management I	3
PHT 5180L	Musculoskeletal Diagnosis and Management I Lab	1
ZOO 5371	Applied Musculoskeletal Systems	3
ZOO 5371L	Applied Musculoskeletal Systems Lab	1

Spring Semester 1: (14 credits)

PHT 5181	Musculoskeletal Diagnosis and Management II	3
PHT 5181L	Musculoskeletal Diagnosis and Management II Lab	1
PHT 5505C	Physical Therapy Constructs of Health and Wellness	3
PHT 5523	Dimensions of Professional Practice Seminar I	3
PHT 6341	Diagnosis and Management of Disease	3
PHT 6341L	Diagnosis and Management of Disease Lab	1

Summer Semester 1: (14 credits)

PHT 5027	Clinical Education Seminar	1
PHT 5182	Musculoskeletal Diagnosis and Management III	3
PHT 5182L	Musculoskeletal Diagnosis and Management III Lab	2
PHT 5205	Clinical Skills	3
PHT 5205L	Clinical Skills Lab	1
PHT 5524	Dimensions of Professional Practice Seminar II	3
PHT 5960	Comprehensive Exam I	1

Fall Semester 2: (12 Credits)

PHT 5525	Dimensions of Professional Practice Seminar III	3
PHT 5805	Clinical Internship I (8 weeks)	5
PHT 6163	Neurological Diagnosis and Management I	3
PHT 6163L	Neurological Diagnosis and Management I Lab	1

Spring Semester 2: (14 credits)

PHT 6127	Advanced Pathologic Movement Analysis	3
PHT 6164	Neurological Diagnosis and Management II	3
PHT 6164L	Neurological Diagnosis and Management II Lab	1
PHT 6381	Diagnosis and Management of Cardiopulmonary Systems	3
PHT 6381L	Diagnosis and Management of Cardiopulmonary Systems Lab	1
PHT 6970	DPT Project 1	3

Summer Semester 2: (13 credits)

PHT 5373	Advanced Therapy Assessment of the Elderly	3
PHT 6169	Neurological Diagnosis and Management III	3
PHT 6169L	Neurological Diagnosis and Management III Lab	1
PHT 6526	Dimensions of Professional Practice Seminar IV	3
PHT 6970	DPT Project 2	3

Fall Semester 3: (14 credits)

PHT 6325	Advanced Clinical Pediatric Physical Therapy	3
PHT 6365	Theories in Sports Physical Therapy	3

PHT 6817	Clinical Internship II (8 weeks)	5
PHT 6xxx	Elective	3

Spring Semester 3: (14 credits)

PHT 6009	Differential Diagnosis in Physical Therapy	3
PHT 6353	Principles of Diagnostics and Pharmacology in Physical Therapy	3
PHT 6827	Clinical Internship III (8 weeks)	5
PHT 6xxx	Elective 2	3

Summer Semester 3: (6 Credits)

PHT 6828	Clinical Internship IV	5
PHT 6961	Comprehensive Exam II	1

Course Descriptions**Definition of Prefixes**

GEY - Gerontology

PHT - Physical Therapy

GEY 5005C Issues in Gerontology for Health

Professions (3). This course examines social, economic, and demographic issues challenging older adults and health care professionals providing services to this age group.

GEY 5600 Physical Change and Healthy Aging (3).

Primary health care and wellness with discussion and assessment of normal physiological alterations and their relationship to common health concerns and medical problems of older adults.

PHT 5027 Clinical Education Seminar (1). This course is designed to address prerequisite clinical education issues that historically contribute to the overall success in the clinical internships. Topics range from use of the evaluation tool to taxonomies of learning. Prerequisites: Admission to Professional PT Curriculum or permission of department.

PHT 5045 Applied Educational Theory in Physical

Therapy (3). The application of teaching and learning principles to Physical Therapy patient education, student clinical education, and continuing education. A variety of teaching methodologies will be practiced by participants. Prerequisites: Admission to PT Professional Program or permission of department.

PHT 5174 Analysis of Movement and Function (3). The course is designed to give physical and/or occupational therapy students the cognitive skills necessary to analyze human movement in the context of physical therapy practice. Prerequisites: Admission to PT Professional Program or permission of department. Corequisite: PHT 5174L.

PHT 5174L Analysis of Movement and Function Lab

(1). The course is designed to give physical and occupational therapy students the psychomotor skills necessary to analyze human movement in the context of PT practice. Prerequisites: Admission to PT Professional Program or permission of department. Corequisite: PHT 5174.

PHT 5180 Musculoskeletal Diagnosis and Management

I (3). This course is designed to prepare the student in the area of physical therapy related musculoskeletal diagnosis and treatment with focus on upper extremities.

Prerequisites: Admission to PT Professional Program or permission of department. Corequisite: PHT 5180L.

PHT 5180L Musculoskeletal Diagnosis and Management I Lab (1). This is the laboratory course designed to prepare students for evaluating and treating physical therapy related musculoskeletal diagnosis. Prerequisites: Admission to PT Professional Program or permission of department. Corequisite: PHT 5180.

PHT 5181 Musculoskeletal Diagnosis and Management II (3). This is designed to prepare the student in the area of Physical Therapy related musculoskeletal diagnosis treatment with focus on lower extremities. Prerequisites: PHT 5180, PHT 5180L, PHT 6341, PHT 6341L. Corequisite: PHT 5181L.

PHT 5181L Musculoskeletal Diagnosis and Management II Lab (1). This is a laboratory course designed to prepare students for evaluating and treating physical therapy related musculoskeletal diagnosis. Prerequisites: PHT 5180, PHT 5180L, PHT 6341, PHT 6341L. Corequisite: PHT 5181.

PHT 5182 Musculoskeletal Diagnosis and Management III (3). This course is designed to prepare the student in the area of Physical Therapy related musculoskeletal diagnosis and treatment with focus on the spine. Prerequisites: PHT 5181 and PHT 5181L. Corequisite: PHT 5182L.

PHT 5182L Musculoskeletal Diagnosis and Management III Lab (2). This is a laboratory course designed to prepare students for evaluating and treating physical therapy related musculoskeletal diagnosis specific to the spine. Prerequisites: PHT 5181 and PHT 5181L. Corequisite: PHT 5182.

PHT 5205 Clinical Skills (3). Utilizing a seminar format, this course will provide the student with the theory and practice of necessary and basic physical therapy clinical skills. Prerequisites: Admission to the PT Program or permission of instructor. Corequisites: PHT 5174 and PHT 5174L.

PHT 5205L Clinical Skills Lab (1). Utilizing a laboratory format, this course will provide the student with the theory and practice of necessary and basic physical therapy clinical skills. Prerequisites: Admission to the PT Program or permission of instructor. Corequisite: PHT 5205, Clinical Skills.

PHT 5218 Physical Agent Modalities for Non-Physical Therapy Majors (1). The course is an introduction to physical agent modalities in rehabilitation for students and practitioners of occupational therapy, athletic training, massage therapy or other health care professions.

PHT 5254 Disability Awareness Through Aquatic Sports (3). Designed for disabled and non-disabled persons to learn life long sports in an interactive format cumulating in weekend sailing and camping trip. Participants will learn the difficulties and methods to facilitate sports for disabled persons.

PHT 5323C Pediatric Physical Therapy (3). Entry-level, skills and competencies in pediatrics, including motor development; diagnosis, examination and intervention; and family, health education, and service delivery issues.

Prerequisites: Admission into the graduate program in PT or permission on instructor.

PHT 5328 Advanced Pediatric Physical Therapy Assessment (3). Analysis of assessment tools in relation to treatment. Competence in administration of appropriate tools will be required at end of course. Prerequisites: Either STA 5126 or STA 6166 and permission of the instructor.

PHT 5335 Physical Therapy in Obstetrics/Gynecology (3). This course will explore the role of the therapist in the field of obstetrics and provide an introduction to gynecological issues. Emphasis will be on evaluation and treatment of the OB client. Prerequisite: Permission of the instructor.

PHT 5336 Theories in Cardiopulmonary Rehabilitation (3). This course is designed to provide students with applied theory in the clinical and physical therapy management of medical and surgical cardiac and respiratory conditions. Prerequisite: Permission of the instructor.

PHT 5373 Advanced Therapy Assessment of the Elderly (3). The study of assessment tools used in geriatric rehabilitation in relation to appropriate intervention strategies and research findings. Prerequisites: Appropriate adult motor development course/permission of major advisor.

PHT 5375 Foundations in Gerontology for Health Professions (3). Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

PHT 5504 Service Learning in Physical Therapy (1-3). The course includes a brief introduction to community service in Physical Therapy, an opportunity to assist professionals to deliver community-based physical therapy services, and the preparation of case studies based on the students' experiences. Prerequisites: Advanced standing in the undergraduate PT program or admission to Graduate PT program.

PHT 5505C Physical Therapy Constructs in Health and Wellness (3). Covers elements of Physical Therapy related prevention, screening, health and wellness for individuals, schools, and communities.

PHT 5515 Therapeutic Services for Physically Impaired and Mentally Retarded Students (3). Lecture, lab, and group work to develop skills of education and therapy professionals for implementation with disabled children in schools. Prerequisite: Permission of major advisor or instructor.

PHT 5523 Dimensions of Professional Practice Seminar I (3). This is the first in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: Admission to Professional PT Curriculum.

PHT 5524 Dimensions of Professional Practice Seminar II (3). This is the second in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: PHT 5523.

PHT 5525 Dimensions of Professional Practice Seminar III (3). This is the third in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: PHT 5524.

PHT 5639 Physical Therapy Administrative Techniques and Methods (3). Provides an in-depth view of the health care industry and its relationship to the P.T. profession. Management techniques in all areas will be presented with emphasis on planning and financial management.

PHT 5805 Clinical Internship I (5). This is the first in a sequence of 4 supervised full-time clinical internships designed to offer the student experiences in patient evaluation and care with emphasis on musculoskeletal dysfunction. Prerequisite: PHT 5960.

PHT 5815 Clerkship in Physical Therapy (2). Two-week full-time clinical experience combined with independent study of question or issue in clinical Physical Therapy. Prerequisite: Permission of major advisor.

PHT 5823 Internship (3). Supervised, full-time clinical experience, designed to offer the student experience in patient evaluation and care, particularly in the areas of rehabilitation and neurorehabilitation. Prerequisite: PHT 4933.

PHT 5960 Comprehensive Exam I (1). This is the first of two comprehensive examinations that cover all previously completed coursework and is required for continued progression in the curriculum. Prerequisites: All Fall and Spring Semester Courses-Year I.

PHT 6009 Differential Diagnosis in Physical Therapy (3). This course is designed to enable the physical therapy student to engage in the diagnostic process to establish differential diagnoses for patients across the life span. Prerequisite: PHT 4300.

PHT 6127 Advanced Pathologic Movement Analysis (3). Explores the abnormal gait and movement patterns as they relate to pathologic states involving either the musculoskeletal or the neurologic system, or both. Prerequisite: Permission of major advisor.

PHT 6145 Motor Development: Adult Through Geriatrics (3). A study of motor development of the adult through old age. Application of developmental principles to physical therapy practice and research. Prerequisite: Permission of major advisor.

PHT 6163 Neurological Diagnosis and Management I (3). This is the first in a sequence of three (3) lecture courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 5960 or permission of instructor. Corequisite: PHT 6163L.

PHT 6163L Neurological Diagnosis and Management I Lab (1). This is the first in a sequence of three (3) laboratory courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 5960 or permission of instructor. Corequisite: PHT 6163.

PHT 6164 Neurological Diagnosis and Management II (3). This is the second in a sequence of three (3) lecture

courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 6163, PHT 6163L. Corequisite: PHT 6164L.

PHT 6164L Neurological Diagnosis and Management II Lab (1). This is the second in a sequence of three (3) laboratory courses designed to prepare the student for psychomotor competencies in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 6163, PHT 6163L. Corequisite: PHT 6164.

PHT 6165 Applied Clinical Neuroanatomy (3). Examines correlation of sites of pathology in the central and peripheral nervous systems with actual patients; their signs and symptoms, their regimen of treatment, and prognosis for rehabilitation. Prerequisites: Neuroanatomy and permission of major advisor.

PHT 6169 Neurological Diagnosis and Management III (3). This is the third in a sequence of three (3) lecture courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 6164, PHT 6164L. Corequisite: PHT 6169L.

PHT 6169L Neurological Diagnosis and Management III Lab (1). This is the third in a sequence of three (3) laboratory courses designed to prepare the student for psychomotor competencies in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 6164, PHT 6164L. Corequisite: PHT 6169.

PHT 6237 Environments/Energy Expenditures of the Disabled (3). Analysis of the home and work settings in relation to various forms of physical disabilities. Energy expenditures pertaining to environmental factors as they pertain to physical therapy evaluation and treatment. Prerequisite: Permission of major advisor.

PHT 6239 Developmental Disabilities in Adulthood (3). A study of adults with developmental disabilities; including aspects of societal perspectives, political and public policy regarding the handicapped, and current theories in treatment of the handicapped adult population. Prerequisite: Permission of major advisor and instructor.

PHT 6325 Advanced Clinical Pediatric Physical Therapy (3). The study of theory, treatment and current clinical research in pediatric physical therapy practice. Prerequisites: Permission of major advisor and PHT 5320.

PHT 6326 Physical Therapy for At-Risk Infants (3). This course will explore current PT practice and research for at-risk infants in NICU, NCCU, and follow-up programs. Includes aspects of physiological and behavioral monitoring indicators for physical therapy intervention. Prerequisite: PT graduate students.

PHT 6341 Diagnosis and Management of Disease (3). Covers Physical Therapy implications of disease processes, conditions and systemic disorders throughout the lifespan. Prerequisite: All Fall Semester Courses-Year I. Corequisite: PHT 6341L.

PHT 6341L Diagnosis and Management of Disease Lab (1). The practicum portion of PHT 6341 that covers physical therapy intervention in disease processes,

conditions, and systemic disorders throughout the life span. Prerequisite: All Fall Semester Courses-Year I. Corequisite: PHT 6341.

PHT 6353 Principles of Diagnostics and Pharmacology in Physical Therapy (3). Topics include interpretation of medical laboratory tests results, diagnostics imaging, and pharmacology with a focus on effects, side effects, and toxicity in relation to PT interventions. Prerequisites: PHT 5182, PHT 6381, PHT 6169, PHT 6341.

PHT 6365 Theories in Sports Physical Therapy (3). Study and exploration of relevant issues in sports physical therapy. Focus on problem identification, investigation, analysis, and problem solving approaches. Prerequisite: Permission of major advisor.

PHT 6381 Diagnosis and Management of Cardiopulmonary Systems (3). This lecture course covers the elements of patient and client management provided by physical therapists with anticipated goals of preferred practice patterns in cardiopulmonary care. Prerequisites: PHT 5205 and PHT 5205L. Corequisite: PHT 6381L.

PHT 6381L Diagnosis and Management of Cardiopulmonary Systems Lab (1). This laboratory course covers the elements of patient and client management provided by physical therapists with anticipated goals of preferred practice patterns in cardiopulmonary care. Prerequisites: PHT 5205 and PHT 5205L. Corequisite: PHT 6381.

PHT 6401 Client-Centered Rehabilitation (3). Utilizes small and large group discussion, multimedia presentations, readings and projects to explore issues of communication, cultural diversity and client-centered rehabilitation.

PHT 6526 Dimensions of Professional Practice Seminar IV (3). This is the fourth in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: PHT 5525.

PHT 6547 Case Management in Physical Therapy (1). Comprehensive physical therapy patient care management and practice review culminating in a simulated physical therapy licensure examination. Prerequisite: PHT 6705 (Long Term Rehabilitation). Corequisite: PHT 6970 (DPT Project).

PHT 6625 Advanced Physical Therapy Clinical Research Methodologies and Design (3). Exploration of scientific method and theory as applied to clinical and experimental research in physical therapy; includes method of inquiry, techniques of data collection, organization, and interpretation. Prerequisites: STA 5126 or STA 6166 and permission of major advisor.

PHT 6705 Long Term Rehabilitation for Persons with Chronic Disease and Disability (3). Applying long term rehabilitation for persons with chronic disease and disability with focus on the continuum of fitness, health and rehabilitation throughout the life span. Prerequisite: PHT 4711.

PHT 6706 Information and Communication Technology in Rehabilitation (3). An introductory course

that focuses on computer rehabilitation technology for clinical practices, research and education, and devices that assist the quality of patient activities. Prerequisite: Student should have a basic understanding of personal computers.

PHT 6714 Spinal Dysfunction I (Lower Back) (3). In-depth exploration of the evaluation and treatment of various lumbar spine dysfunctions. Prerequisite: Permission of major advisor.

PHT 6715 Spinal Dysfunction II (Upper Back) (3). In-depth exploration of the evaluation and treatment of various cervical spine dysfunctions. Prerequisite: Permission of major advisor.

PHT 6716 Theories in Orthopedic Physical Therapy (3). Study and exploration of relevant issues in orthopedic physical therapy. Focus on problem identification, investigation, analysis, and problem solving approaches. Prerequisite: Permission of major advisor.

PHT 6718 Theories in Neurorehabilitation (3). Examines theoretical bases of evaluation and treatment of the neuro-patient; includes exploration of the relationship of motor control and motor learning to current neurologic rehabilitation. Prerequisite: Permission of major advisor.

PHT 6725 Extremity Evaluation and Rehabilitation (3). In-depth exploration, critical analysis, and investigation of joint and extremity dysfunctions. Prerequisite: Permission of major advisor.

PHT 6746C Complementary Therapies for Rehabilitation Professionals (3). Complementary PT will describe and explain how various complementary therapies will be introduced and incorporated into rehabilitation programs. Practical application and safety will be emphasized. Prerequisites: PHT 5205, PHT 5205L, PHT 5505.

PHT 6817 Clinical Internship II (5). This is the second in a sequence of 4 supervised full-time clinical internships designed to offer the student experience in patient evaluation and care with general medical and surgical clients. Prerequisites: PHT 5960, PHT 6164, PHT 6164L.

PHT 6824 Internship I (3). Supervised full-time clinical experience with emphasis on: evidence-based practice; clinical decision making; administration; educational activities; outcomes assessment; differential diagnosis; and consultation. Prerequisite: PHT 6009.

PHT 6825 Internship II (3). Continuation of PHT 6824, Internship I. Prerequisite: PHT 6824.

PHT 6826 Internship III (3). Continuation of PHT 6825, Internship II. Prerequisite: PHT 6825.

PHT 6827 Clinical Internship III (5). This is the third in a sequence of 4 supervised full-time clinical internships designed to offer the student experience in patient evaluation and care with the neurologically involved client. Prerequisite: PHT 6961.

PHT 6828 Clinical Internship IV (5). This is the final in a sequence of 4 supervised full-time clinical internships designed to offer the student experience in patient care in a specialty setting, including but not limited to pediatrics, SCIP, burns, etc. Prerequisite: PHT 6961.

PHT 6845 Resources and Skills for the PT/PI student (3). This course focuses on the interdisciplinary team that works for the optimum educational benefit of the student. Therapists and teachers will learn and work collaboratively within this course. Corequisites: Graduate OT, PT, or Education students.

PHT 6905 Independent Study (1-3). Individually determined, research-oriented, in-depth study of a physical therapy issue. An independent study contract must be approved by the instructor. Prerequisites: Permission of major advisor and instructor. Must be fully admitted to the graduate program.

PHT 6961 Comprehensive Exam II (1). The second comprehensive examination covering all previously completed coursework and is required for continued progression in the curriculum. Prerequisites: All Fall and Spring Semester Courses-Year II.

PHT 6970 DPT Project (3). An individually supervised project for physical therapy students.

PHT 6971 Master's Thesis (3). Supervised research which demonstrates the application of analytical, conceptual and technical skills to a specific physical therapy problem. Prerequisite: Permission of major advisor.

Certificate Programs

Professional Certificate in Family-Focused Health Care Across Cultures

The objective of the certificate is to educate health care practitioners in the use of an international perspective through attitude, thinking processes and practice skills in their approach to health care either locally with ethnic group or abroad. This program responds to the demand for cultural expertise in the local community and worldwide. This program include possibilities for a semester of study abroad. With the exception of the practicum, all courses are entirely web-based.

Admissions

Students must have previously earned a Bachelor's degree in a health of health-related profession. They must be admitted to the certificate program by the Director for the Graduate Nursing Program who will serve as the advisor. Students will apply directly to the College of Nursing and Health Sciences. They also must complete the online graduate certificate application available at <http://gradschool.fiu.edu>. Transcripts and previous work are reviewed by the Director for the Graduate Nursing Program at the College of Nursing and Health Sciences who develops a program of study.

Curriculum

Introduction Seminar (3 weeks)

NGR 5935	Cultural Immersion for International Health Care	1-2
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International Health Core

NGR 5604	Culture and Advanced Nursing Practice	3
NGR 4610C	Family Theory and Nursing Intervention Across Cultures	3
NGR 5640C	Interdisciplinary Health Care Across Cultures	3

Practicum (3 weeks)

NGR 5632	Practicum in International Family-Focused Nursing	1
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Graduate Certificate in Gerontology

The objective of the certificate is to provide graduate students and qualified practitioners in the field of aging with a range of gerontological courses leading to a specialization in gerontology to supplement their chosen disciplines. Through provision of an in-depth understanding of the bio-socio-psychological nature of the aging process, and the relation of political and economic resources, the program's long range objective is to increase the knowledge and sensitivity of professionals in this area, and thereby improve the service delivery system for the increasingly large population of elderly Floridians.

Admission

Students must have a bachelor's degree and be admitted to the program by the Program Coordinator who will serve as their faculty advisor.

Program of Study (18)

SOW 5641	Understanding the Process of Aging	3
NGR 5250	Physical Change and Healthy Aging	3
HSA 5226	Management of Long Term Care Systems	3

The balance of four courses to be selected from the following areas of concentration. Students who have not had direct practice with older people will be required to select an Individual Study course which will include 225 hours of practicum experience.

Long Term Care Administration

HSA 5225	Long Term Care Management I	3
HSA 5226	Management in Long Term Care	3
HSA 5227	Long Term Care Management II	3
HSA 5454	Ethical Decision Making in Health Services Administration	3
HSA 5816	Practicum in Long Term Care Management	3

Aging and Rehabilitation

OTH 5600	Study of Gerontology as Related to Occupational Therapy	3
OTH 5613	Interdisciplinary Approach to Aging	3
OTH 5630	Occupational Therapy Assessment of the Elderly	3
OTH 5764	Research (<i>topic selected in Geriatric Clinical Specialty</i>)	3
OTH 5905	Independent Study (<i>variable credit</i>)	
PTH 6238	Motor Development: Adult Through Geriatrics	3
PTH 6239	Adult Congenital Handicapping Conditions	3

Psychology of Aging

DEP 5404	Proseminar in Psychology of Adulthood and Aging	3
DEP 6438	Gerontological Assessment	3
DEP 6465	Psychology of Culture and Aging	3
DEP 6446	Cognitive Processes of Aging	3

Social Work Practice with Older Persons

SOW 5605	Medical Social Work	3
SOW 5845C	Counseling the Elderly	3
SOW 5905	Individual Study	1-3
SOW 6245	Social Welfare Policy and Services for the Elderly ¹	3
SOW 6247	Housing and Environmental Needs	3
SOW 6359	Social Work Treatment with Families of Elderly ¹	3
SOW 6646	Social Work Practice with Elderly ¹	3
SOW 6647	Advocacy in Social Work Practice	3
SOW 6649	Social Work Practice in Long Term Care and the Elderly	3

¹Open only to students with MSW degree or students in Master's degree program in Social Work.

Education

ADE 5195	Designing Education and HRD Programs for Disadvantaged Adults	3
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Criminal Justice

CCJ 5935	Special Topics: Crime and the Elderly	3
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Nurse Executive Certificate Program

Students who are not seeking the Master of Science in Nursing (MSN) degree, but who still seek professional preparation for a nursing management career are candidates for the Nurse Executive Certificate Program. The purpose of the certificate program is to enhance the knowledge and skills of the first line nursing supervisory staff. These courses can also be applied toward a Nurse Executive graduate (MSN) degree. Eligible candidates for admission to the program must have a baccalaureate degree in nursing.

Curriculum

NGR 5730C	Organizational Dynamics of Nursing Systems	3
NGR 6726C	Nursing Management/CQI	3
NGR 5723C	Advanced Nursing Administration I	4
NGR 6724C	Advanced Nursing Administration II	4

Post-Master's Nurse Practitioner Certificate Program

This Post-Master's Nurse Practitioner Certificate Program is built upon a recent Master's degree in nursing. Transcripts of previous work are reviewed by the Graduate Nursing Program Director and a program of study is developed. The Certificate program includes the clinical specialty courses (AHN, CHN, PMHN, or FHN), the role development course, and core courses not covered by transcripts of previous work.

Admission Requirements

1. A Master of Science in Nursing (MSN) degree from an NLNAC accredited program.
2. A graduate (MSN) grade point average (GPA) of 3.0 or above.
3. Graduate courses in nursing theory (3 credits) and research (3 credits).
4. State of Florida RN licensure. A photocopy of the license must be submitted along with student's application to the Post Master's Nurse Practitioner Certificate Program.
5. Pre-admission interview with a member of the Graduate Nursing Admissions Committee.
6. Two letters of recommendation.

Admission Procedure

1. File application for admission directly to the College of Nursing and Health Sciences Graduate Program Office prior to registration and complete and online application available at <http://gradschool.fiu.edu>.
2. Submit official transcripts of all previous college work, both graduate and undergraduate.
3. Application file should be completed at least two weeks before registration. Qualified applicants will be admitted as non-degree seeking students.

Curriculum**Nurse Practitioner Core (9)**

NGR 5035C	Advanced Client Assessment	3
NGR 5141	Pathophysiologic Basis of Adult Nursing	3
NGR 6192	Pharmacological Concepts in Advanced Nursing Practice	3

MSN Core (3)

NGR 5604	Culture and Advanced Nursing Practice	3
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Primary Core (6-8)

NGR 6601C	Advanced Family Health Nursing I	4
NGR 6601L	Advanced Family Health Nursing Practice I	4

Role Development (4)

NGR 6704L	Role Synthesis in Advanced Nursing Practice	4
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Post Master's Certificate in Nursing Education

The Post Master's Certificate in Nursing Education is designed to provide nursing faculty teaching in all nursing programs (LPN, ADN, BSN, MSN, and Doctoral) knowledge, skill, and structured experiences in classroom and clinical teaching. It enables Community College nursing faculty in Florida to meet requirements for courses in education to maintain their teaching certificates. It will prepare nursing faculty for professional certification by the National League for Nursing for Nursing as an academic educator.

The curriculum for the Post Master's Certificate in Nursing Education will consist of 16 credit hours, 10 credit hours in classroom/didactic instruction and 6 credit hours in classroom/clinical teaching experience/seminar.

Admission Requirements

- Master's degree in Nursing from a nationally accredited education institution.
- GPA of 3.0 in MSN
- Letters of recommendation from prior faculty member and nursing supervisor.
- Statement of personal goals including personal philosophy of teaching and learning.

Curriculum

NGR 6713	Curriculum Development in Nursing	3
ADE 5386	Individual Learning and Adult Education	3
ADE 6360	Adult Teaching Methods	3
NGR 6715	Instructional Technology in Nursing and Health Sciences	1
NGR 6708C	Classroom Teaching Strategies for Nursing (Practicum Experience in Classroom Instruction)	3
NGR 6714C	Clinical Teaching Strategies for Nursing (Practicum Experience in Clinical Instruction)	3

Graduate Certificate in Occupation – Based Injuries

The Certificate is fully online and seeks to provide graduate level instruction in the prevention and management of occupation-based injuries across the lifespan. Occupation-based is defined as the active or "doing" process when one is engaged in a goal-directed activity (Punwar & Peloquin, 2000). For example, the occupation of an infant is play, where the occupation of a school-age child is that of a student. At the present time there are different certificates offered in the University but these focus on the worker role. The proposed Certificate is unique in addressing injuries across the lifespan, thus, it will not compete with any existing certificate at FIU.

The Certificate requires the completion of the following 18 fully online graduate credits.

PHC 6355	Occupational Health and Safety	3
PHC 6589	Health Promotion in Institutional Settings	3
OTH 5002	Occupation and Health	3
OTH 5195	Occupational Therapy Job Modification	3
OTH 5407	Theoretical Perspectives of Pain	3

OTH 6937	ADA Workplace Accomodations of Persons with Disabilities	3
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Or equivalent courses as approved by the advisor.

College of Nursing and Health Sciences

Dean **Divina Grossman**
 Associate Dean, Academic Affairs **Sharon Pontious**
 Associate Dean, Administrative Affairs **Helen Cornely**
 Assistant Dean, Student Services **Marguerite Cooke-William**

Chairs and Coordinators:

Athletic Training **Jennifer Doherty-Restrepo**
 Communication Sciences and Disorders **Noma Anderson**
 Health Information Management (Interim) **Sandra McDonald**
 Health Sciences **Carol DeLong Pyles**
 Nursing, Graduate (Interim) **Sharon Pontious**
 Nursing, Undergraduate **Margaret Hamilton**
 Nursing, Biscayne Bay Campus **Paula Delpech**
 Occupational Therapy **Alma Abdel-Moty**
 Physical Therapy **Leonard Elbaum**

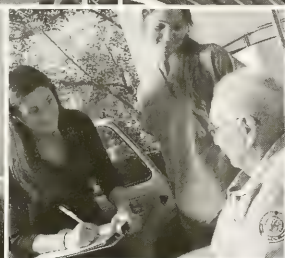
Faculty

Abdel-Moty, Alma, O.T.D., O.T.R/L (Florida International University), Clinical Associate Professor and Chair, Occupational Therapy
Anderson, Kathryn, Ph.D., RN, ARNP (University of Minnesota), Associate Professor, Nursing
Anderson, Noma, Ph.D. (University of Pittsburgh), Professor and Chair, Communication Sciences and Disorders
Ardila, Alfredo, Ph.D. (Moscow State University), Associate Professor, Communication Sciences and Disorders
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Bernstein, Steve, Ph.D., P.T. (Nova Southeastern University), Clinical Associate Professor, Physical Therapy
Blais, Kathleen, Ed.D., RN (Florida Atlantic University), Associate Professor, Nursing
Bloch, Elise, M.E.D., O.T.R/L (Queens College, City University of New York), Clinical Assistant Professor, Occupational Therapy
Bloyer, Martha, M.S., P.T. (Florida International University), Clinical Assistant Professor and Director of Clinical Education, Physical Therapy
Bogopolskiy, Tatayana, M.S.N., RN, ARNP (Florida International University), Clinical Assistant Professor
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Colon, Rose, Ph.D. (University of Houston), Assistant Professor, Health Sciences
Cornely, Helen Z., Ed.D., P.T. (Florida International University), Associate Dean of Administrative Affairs and Associate Professor, Physical Therapy
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Elbaum, Leonard, Ed.D., P.T. (Florida International University), Associate Professor and Chair, Physical Therapy
Fletcher, Cynthia, Ph.D., RN (University of Miami), Clinical Assistant Professor, Nursing
Friedemann, Marie-Luise, Ph.D., RN (University of Michigan), Professor, Nursing
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Gillespie-Johnson, Marjorie, Ph.D., RN-BC, ARNP (University of Maryland), Assistant Professor, Nursing
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Gonzalez, Vicente, M.S., RN, CRNA, ARNP (Barry University), Clinical Assistant Professor, Nursing
Gordon, Josephine, M.S. (Florida International University), Visiting Clinical Instructor and Interim Director, Health Information Management
Gordon, Yhovana, M.S.N., RN, ARNP (Florida International University), Clinical Assistant Professor, Nursing
Gouvea, Ana Cristina, Ph.D. (University of Maryland), Assistant Professor, Communication Sciences and Disorders
Graczkowski, Marek, M.H.S.A. (Florida International University), Visiting Clinical Assistant Professor, Occupational Therapy
Granville, Mirta, M.S.N., RN-BC, ARNP (California State University-Long Beach), Clinical Assistant Professor, Nursing
Groom, Jeffery, Ph.D., M.S., RN, CRNA, ARNP (Nova Southeastern University), Clinical Associate Professor and Interim Director, Anesthesiology Nursing
Grossman, Divina, Ph.D., RN, ARNP, FAAN (University of Pennsylvania), Dean and Professor, Nursing
Hamilton, Margaret, D.N.S., RN (Indiana University), Clinical Associate Professor and Director of Nursing Undergraduate, Nursing
Hernandez, Laura, M.S.N., RN-BC, ARNP (Barry University), Courtesy Clinical Instructor, Nursing
Holder, Heather, M.S.N., RN, ARNP (Florida International University), Clinical Assistant Professor, Nursing
Keane, Florence, D.N.S., M.S.N., RN-BC, ARNP (Florida Atlantic University), Assistant Professor, Nursing
Lizardo, Lourdes, Ed.D., RN-BC, ARNP (Florida International University), Clinical Associate Professor, Nursing
Lobar, Sandra, Ph.D., RN-BC, ARNP (University of Miami), Associate Professor, Nursing

- Mead, Jean, Ed.D., CCC, CSD** (*West Virginia University*), Clinical Assistant Professor, Communication Sciences and Disorders
- Miller, Nancy, M.S.N., RN-BC, CCM, LNC** (*Florida Atlantic University*), Clinical Assistant Professor, Nursing
- Munoz, Mariateresa, M.S., CC-SLP** (*Nova Southeastern University*), Clinical Assistant Professor, Communication Sciences and Disorders
- Odai, Michelle, M.S., ATC, LAT, CSCS** (*California University of Pennsylvania*), Visiting Clinical Assistant Professor, Athletic Training
- Olafson, Elizabeth, M.S.Ed., RN-BC** (*University of Miami*), Clinical Assistant Professor, Nursing and Director of Clinical Education
- Parchment, Yvonne, Ed.D., RN-BC, CCRN, ARNP, CNE** (*Florida International University*), Clinical Associate Professor, Nursing
- Patsdaughter, Carol, Ph.D., RN** (*University of Washington*), Clinical Professor, Nursing
- Paul-Ward, Amy, Ph.D.** (*University of California*), Assistant Professor, Physical Therapy
- Pestano-Harte, Marilyn, M.S.N., RN** (*University of Phoenix*), Clinical Assistant Professor and Director of Admissions and Student Services, Nursing
- Phillips, Suzanne, Ed.D., RN, ARNP** (*Florida International University*), Associate Professor, Nursing
- Pontious, Sharon, Ph.D., RN, CNE** (*New Mexico State University*), Professor and Associate Dean, College of Nursing and Health Sciences, Interim Director for Graduate Programs, Nursing
- Porter, Luz, Ph.D., RN, ARNP, FAAN** (*New York University*), Professor, Nursing
- Pyles, Carol, Ed.D., RN, CHES, NCC, CTAC-CAP, LPC** (*West Virginia University*), Clinical Professor and Director, Health Sciences
- Ramos, Eliane, Ph.D.** (*University of Massachusetts*), Clinical Assistant Professor, Communication Sciences and Disorders
- Renna, Debra, M.S.N., CCRN** (*Nova Southeastern University*), Clinical Assistant Professor, Nursing
- Roberts, Lisa, D.P.T., P.T., G.C.S.** (*Nova Southeastern University*), Clinical Assistant Professor, Physical Therapy
- Rose-St. Prix, Colleen, M.H.S.A., P.T.** (*Florida International University*), Associate Professor, Physical Therapy
- Rossi, Mark, Ph.D., P.T.** (*Texas Woman's University*), Assistant Professor, Physical Therapy
- Shaffner, Pamela, M.S., O.T.R/L** (*University of Florida*), Clinical Associate Professor, Occupational Therapy
- Sheffey, Agnes, O.T.D., O.T.R/L** (*Nova Southeastern University*), Clinical Assistant Professor, Occupational Therapy
- Simon, Sharon, M.S.N., RN, CNS** (*University of Miami*), Clinical Assistant Professor, Nursing
- Thomas, Tami, Ph.D., RN-BC, ARNP** (*University of Florida*), Assistant Professor, Nursing
- Tripp, Brady, Ph.D., ATC, LAT** (*University of Kentucky*), Assistant Professor, Athletic Training
- Viking, Eva, M.S.N., RN, ARNP** (*University of Tampa*), Visiting Clinical Assistant Professor, Nursing
- Whaley, Mirtha, Ph.D., M.P.H., OTR/L** (*University of South Florida*), Assistant Professor, Occupational Therapy
- Wong, Marlon, D.P.T., P.T., O.C.S., C.O.M.T** (*Olga Grimsby Institute*), Clinical Assistant Professor, Physical Therapy
- Youngblut, JoAnne, Ph.D., RN, FAAN** (*University of Michigan*), Professor, Nursing



FLORIDA INTERNATIONAL UNIVERSITY



COLLEGE OF
**SOCIAL WORK,
JUSTICE, AND
PUBLIC AFFAIRS**

College of Social Work, Justice, and Public Affairs

Social Work

Paul H. Stuart, *Professor and Director*

Mary Helen Hayden, *Assistant Professor and Associate Director*

Richard Beaulaurier, *Associate Professor*

Jennifer Becker, *Clinical Instructor and Title IV-E Coordinator*

David Cohen, *Professor*

Shelley Craig, *Visiting Instructor*

Mario De La Rosa, *Professor and Director, Center for Research on U.S. Latinos HIV/AIDS and Drug Abuse*

Jennifer Drazen, *Student Services Coordinator*

Marian Dumaine, *Clinical Associate Professor and Field Practicum Coordinator*

Andres Gil, *Associate Professor and Associate Vice President for Research*

Rosa Jones, *Associate Professor and Vice President of Student Affairs and Undergraduate Education*

Mark Macgowan, *Associate Professor*

Susan Mankita, *Visiting Instructor*

Adis Orta, *Visiting Instructor and Assistant Field Practicum Coordinator*

Miriam Potocky-Tripodi, *Associate Professor*

Chris Rice, *Associate Professor*

Florence Safford, *Professor Emeritus*

Barbara Thomlison, *Professor and Director, Institute for Children and Families at Risk*

Ray Thomlison, *Professor and Dean, College of Social Work, Justice, and Public Affairs*

Nan Van Den Bergh, *Clinical Associate Professor*

Richard Van Dorn, *Assistant Professor*

Eric F. Wagner, *Professor and Director, Community Based Intervention Research Group*

Stephen E. Wong, *Associate Professor*

Social Work offers graduate and undergraduate studies leading to the Master of Social Work and Bachelor of Science in Social Work degrees. The School also offers a Ph.D. in Social Welfare.

The profession of Social Work requires a high degree of knowledge and dedication. The desire and ability to work effectively with people and to help solve social problems demands a scientific understanding of society and human behavior, skills in social work practice, and identification with the values of the profession.

Master of Social Work

The program and courses listed in this catalog are under review and changes may be made without advance notice.

Social Work offers an integrated program that leads to the Master of Social Work (MSW) degree. The program is designed to give the student professional education for the advanced practice of social work. The curriculum applies a bio-psychosocial model within the context of a social systems framework to understand client systems, address problems and develop interventions.

All students will be required to acquire or to possess the common base in the areas of professional study considered essential in social work education: human behavior and the social environment, social welfare

policies and services, research, and social work practice. The knowledge acquired in the professional courses will be applied in supervised field experiences in social agencies.

The program offers a concentration in advanced clinical practice and students complete a field practicum program that supports practice in that concentration. With the help of faculty, students will develop individualized programs in the concentration to meet their educational needs and contribute to their professional objectives. The program provides a curriculum which meets the current educational requirements for clinical licensure in Florida.

For additional information regarding the graduate social work program of study and degree requirements, contact the School of Social Work at (305) 348-5880.

The Master of Social Work Program at Florida International University is accredited by the Council on Social Work Education.

Admission Requirements

Applicants to the graduate program are required to meet the minimum standards set forth by the Florida Board of Education, the University, and the graduate social work program. This includes at least a 3.0 average in all upper-level division work. The GRE is no longer required. Application procedures for admission to graduate study are found in the graduate admission section of this catalog. An application to the University, an application to the Social Work graduate program, a personal narrative, and three letters of reference are required for admission. A personal interview may be requested. All applicants should have had college-level courses in biology (including coverage of Human Biology) and statistics and 12 semester hours in the social and behavioral sciences.

Applicants with a B.S.W. degree from a program accredited by the Council on Social Work Education (CSWE) will be considered for admission to Advanced Standing. The applicant must have received his/her BSW degree within the last five years, in order to be considered for Advanced Standing. Applicants for the Advanced Standing program will not be awarded any transfer credit, substitutions, or exemptions. Advanced Standing is not automatically granted.

In addition to the College and University policies governing transfer credit the following regulations apply:

1. Courses taken in a Master of Social Work program, accredited by the Council on Social Work Education, in which the applicant was fully admitted, may be transferred up to a maximum of 6 semester hours.
2. Graduate courses taken in other than CSWE accredited Social Work programs may not be transferred.
3. Students in the Advanced Standing Program will not be awarded transfer credits.
4. Required concentration courses (6000 level) are not transferable.

Degree Requirements

The Master of Social Work program is a 60 semester hour program composed of a 30 semester hour foundation followed by 30 semester hours of concentration courses in the second year. The Advanced Standing Master of Social Work is composed of 30 semester hours of concentration courses.

An overall GPA of 3.0 is required for graduation. Any required course in which a student receives a grade lower than 'B' must be retaken. (A grade of 'B-' is not acceptable.) However, a grade of 'B-' in an elective does not have to be retaken. A passing grade in field practicum courses is required for continuation in the program. Field courses cannot be repeated.

A student must successfully complete all work applicable to the Master of Social Work program within 48 months from initial admission. In unusual circumstances, and if the reasons warrant it, a student may petition the School Director for an extension of the time limit.

Required Courses: (60)

Semester I

SOW 5105	Human Behavior and the Social Environment I	3
SOW 5342	Social Work Practice with Individuals and Families	3
SOW 5404	Social Work Research Methodology	3
SOW 5235	Social Welfare Policy and Services I	3
SOW 5344	Theory and Practice with Communities and Organizations	3

Semester II

SOW 5324	Theory and Practice with Groups	3
SOW 5532	Clinical Practicum I	6
SOW 5629	Theory and Practice with Groups	3
SOW	Social Work Elective	3

Semester III

SOW 6125	Human Behavior & the Social Environment II – Psychopathology	3
SOW 6425	Clinical Assessment and Intervention Planning	3
SOW 6435	Evaluating Empirically Based Social Work Practice	3
SOW 6236	Social Welfare Policy and Services II	3
SOW 6533	Clinical Practicum II	3

Semester IV

SOW 6351	Clinical Intervention in Couple and Family Social Work Practice	3
SOW 6534	Clinical Practicum III	6
SOW	Social Work Clinical Practice Elective	3
SOW	Social Work Clinical Practice Elective	3

Students are required to complete all of the First Year Courses and be fully admitted before enrolling into any of the second year or 6000 level Concentration courses.

Juris Doctor/Master of Social Work Joint Degree Program

The faculties of the College of Law and the School of Social Work at Florida International University have approved a joint degree program culminating in both a Jurist Doctor degree, awarded by the College of Law, and a Master of Social Work degree, awarded by the School of Social Work. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain degrees if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

1. Candidates for the program must meet the entrance requirements for and be accepted by both the College of Law and the School of Social Work. Both schools must be informed by the student at the time of

application to the second school that the student intends to pursue the joint degree.

2. The joint degree program is not open to students who have already earned one degree.

3. For law students, enrollment in the M.S.W. program is required no later than the completion of 63 credit hours in the J.D. program. For M.S.W. students, enrollment in the J.D. program is required no later than the completion of 30 credit hours in MSW Program.

4. A student must satisfy the curriculum requirements for each degree before either degree is awarded. The School of Social Work will allow 9 credit hours of approved law courses to be credited toward both the M.S.W. and J.D. degrees. These 9 credit hours of law classes will be in lieu of Social Work electives and must be selected from an approved list of law classes. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the J.D. degree for courses taken in the M.S.W. curriculum upon completion of the M.S.W. degree curriculum with a grade point average of 3.0 or higher.

5. A full-time law student enrolled in the joint degree program may spend the first year in either the College of Law or the School of Social Work. A part-time law student enrolled in the joint degree program may begin the student's studies in either the College of Law or the School of Social Work, but must take the first three semesters of law study consecutively. Students admitted to one school but electing to begin study in the other school under the joint degree program may enter the second school thereafter without once again qualifying for admission so long as they have notified the second school before the end of the first week of the first semester in the second school and are in good academic standing when studies commence in the second school.

6. A student enrolled in the joint degree program will not receive either degree until the student has satisfied all of the requirements for both degrees, or until the student has satisfied the requirements of one of the degrees as if the student had not been a joint degree candidate.

7. Students in the joint degree program will be eligible for the graduate teaching assistantships and research assistantships in the School of Social Work on the same basis as other M.S.W. students, subject to the guidelines and restrictions set by the School of Social Work.

Doctor of Philosophy in Social Welfare

The Doctor of Philosophy in Social Welfare aims to prepare students for careers in research, university teaching, and leadership in social work and social welfare.

The overarching emphasis in the Ph.D. program is on research to develop effective and culturally competent interventions (from direct practice to social policy) to meet the human needs of individuals, families, groups, and communities in urban settings.

In courses, seminars, and supervised study and research, students are assisted to develop and strengthen their skills in methods of scientific inquiry, to deepen their understanding and analysis of social problems and public issues, and to contribute to the knowledge base of social welfare. Students pursue a course of study focused on social problems, levels of intervention, and research methodologies related to an area of specialization of particular interest to them. While in the program, students are expected to disseminate the results of their study and

research in appropriate forums. Students are also offered opportunities to teach.

Admission Requirements

Applicants are required to meet the following requirements:

1. A Master's degree in Social Work from an accredited school of social work, or in a closely related field.
2. Evidence of superior academic achievement in undergraduate and graduate education, including a 3.0 (upper division) undergraduate GPA and a 3.5 graduate GPA.
3. A composite quantitative and verbal score of least 1120 on the Graduate Record Examination (GRE).
4. Documentation of completion of courses in statistical methods and research methodology with grades of 'B' or better.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or overall on the IELTS is required;
6. Three letters of recommendation (two academic and one professional);
7. Two examples of written scholarly work;
8. A personal statement describing the applicant's research interests and career goals.

All applicants must be approved by the Doctoral Committee. Applications for Fall semester admission are due by March 1 of the year of application.

Degree Requirements

1. Completion of a minimum of 60 credits: (at least 36 credit hours of required coursework taken over the first three consecutive semesters following admission, obtaining at least a "B" grade for each course, and at least 24 dissertation credit hours following advancement to candidacy); continuous registration for at least 3 credit hours of dissertation courses during each semester following advancement to candidacy; maintenance of an overall cumulative grade point average (GPA) of at least 3.0;
2. Filing, before the end of the fourth semester of study, three major papers, each having obtained a grade of at least "B+" from a three-member Doctoral Candidacy committee (this constitutes the Doctoral Candidacy Examination);
3. Successful defense of a Dissertation Proposal from a duly constituted Dissertation Committee;
4. Completion of a dissertation under the guidance of the Dissertation Committee;
5. Successful defense of the dissertation before the Dissertation Committee and the University community;
6. Obtaining the Ph.D. degree within nine years of admission into the Ph.D. program.

Program of Study

The Doctor of Philosophy in Social Welfare is a 60 semester hour program comprised of 12 required courses and 24 semester hours of dissertation study.

Course Offerings

Semester I

SOW 7492 Theory Development and Research Methods in Social Welfare

SOW 7406	History & Systems of Social Work Research	3
PHC 6709	Quantitative Research Methods	3
AAA xxxx	Graduate Elective or	3
SOW 7916	Supervised Research	3
Semester II		
SOW 7237	Micro-Practice Theory and Research	3
SOW 7xxx	Applied Statistics II	3
ANG 6497	Qualitative Research Methods or	
EDF 6475	Qualitative Foundations of Educational Research	3
AAA xxxx	Graduate Elective or	
SOW 7916	Supervised Research	3
Semester III		
SOW 7238	Macro-Practice Theory and Research	3
SOW 7216	Social Welfare Policy	3
AAA xxxx	Graduate Elective or	
SOW 7916	Supervised Research	3
SOW 6914	Independent Research	1
Semester IV		
SOW 7936	Dissertation Seminar in Social Welfare	3

Course Descriptions

Definition of Prefixes

IHS – Interdisciplinary Courses

SOW - Social Work

PHC 6709 Quantitative Research Analysis in Health Urban Affairs I (3). Application of quantitative techniques used for research analysis in health and urban affairs research and practice settings. Prerequisites: STA 3145 or STA 6166 or equivalent.

SOW 5105 Human Behavior and the Social Environment I (3). Study of individuals and families with emphasis on the analysis of biopsychosocio-cultural factors (including racial/ethnic and gender variables) affecting human development and social functioning through the life cycle. Prerequisites: 12 semester hours of college-level courses in the social and behavioral sciences and one college-level course in biology (including coverage of human biology).

SOW 5109* Crises in the Lives of Women (3). An overview of special experiences in the lives of women which might lead women to seek professional assistance. Topics include pregnancy, domestic violence, rape, abortion, childbirth, sex discrimination, AIDS, climacteric, widowhood. Prerequisites: Senior or graduate standing.

SOW 5155* Social Work Practice with Sexual Problems (3). Skills applicable to sex-related concerns encountered in social work practice. Presents theories of the etiology of common sexual problems and explores treatment intervention modalities. Prerequisites: Graduate or senior level practice course or permission of the instructor.

SOW 5235 Social Welfare Policy and Services I (3). This course analyzes major social welfare policies and programs in the United States, their emergence, development, contemporary operations and how they shaped the development of the Social Work profession.

SOW 5240 Advanced Interventions in Child Maltreatment (3). This course will examine best practices in the health, mental health, and socio-emotional

development of children and adolescents within the child welfare system.

SOW 5241 Advanced Child Welfare Policy and Practice (3). This course will explore professional practice and policy issues in child welfare, with emphasis on intervention in child maltreatment. Prerequisite: SOW 5105 or advanced standing or permission of the instructor.

SOW 5324 Theory and Practice With Groups (3). Study and application of biopsychosocial, cultural dimensions, theories, techniques and intervention strategies for social work group practice. Prerequisite: SOW 5342. Corequisite: SOW 5532.

SOW 5342 Social Work Practice with Individuals and Families (3). This course is an overview of social work practice with individuals and families placing emphasis on professional values, interviewing skills, assessment, intervention, and outcome evaluation, all within a cross-cultural perspective. Pre/Corequisite: SOW 5105.

SOW 5344 Theory and Practice with Communities and Organizations (3). Study and application of biopsychosocial-cultural dimensions, theories, techniques and intervention strategies for communities and organizations. Focuses on empowerment of populations at risk and promotion of social and economic justice.

SOW 5354* Crisis Intervention in Social Work Practice (3). This course examines the etiology, structure, theory, and application of crisis intervention in social work practice. It provides assessment criteria for assignment to this form of treatment and techniques for intervention. Prerequisites: Senior or graduate level practice course, or permission of the instructor.

SOW 5365* Behavior Therapy in Social Work Practice (3). Overview of the principles, clinical foundations, and applications of socio-behavioral approaches relevant to social work practice. Emphasis on behavioral change methods and problem solving in assessment, intervention, and evaluation.

SOW 5404 Social Work Research Methodology (3). This course provides information on the principles and methods of basic social work research. The ethical conduct of research is taught within the context of social work purposes and values. The formulation of problems for study that address the social needs of diverse population groups is emphasized. Prerequisite: Statistics.

SOW 5455* Writing and Managing Grants for Social Service Programs (3). Prepare students to write, develop and manage grants for social services programs. Develop knowledge of grant sources, the grant making, writing and management of grant funded social welfare services. Prerequisite: SOW 5344.

SOW 5532 Clinical Practicum I (6). The first masters-level field practicum and seminars that provide students with the opportunity to apply and integrate generalist social work knowledge and skills. Prerequisites: SOW 5629, 5105, 5235, 5342, 5344, and SOW 5404. Corequisites: SOW 5629, 5324.

SOW 5541* Advanced Standing Seminar (2). This course examines the integration of academic knowledge and social work skills that develop the profession's critical

thinking foundation. Prerequisites or Corequisites: SOW 6125, SOW 5324.

SOW 5605* Medical Social Work (3). Principles of medical social work practice in hospitals and communities. Focuses on the social worker as part of the health care team, with basic knowledge of medical problems of patients and their families. Prerequisites: Graduate or senior standing.

SOW 5607* Social Work Practice and Psychopharmacology (3). Social work practice, research, and policy in relation to psychotropic drugs including effectiveness and limitations of main drug classes and ethical, professional, legal, scientific and cultural issues. Prerequisites: Graduate or senior standing.

SOW 5614* Social Work Practice with Persons Affected by Domestic Violence (3). Course prepares students to appropriately identify, assess, and intervene with persons affected by domestic violence utilizing assessment and intervention strategies in practice. Prerequisites: Graduate or Senior standing with the permission of the instructor.

SOW 5621* Social Work with Refugees, Immigrants, and Migrants (3). Provides skills and knowledge responsive to the needs of immigrants and refugees and addresses influences of cultural, ethnic, gender, age, and class differences in acculturation and service delivery. Prerequisites: Graduate or Senior standing with the permission of the instructor.

SOW 5624* Feminist Therapy in Social Work (3). Reviews basic principles of feminist therapy and focuses on the application of feminist therapy in clinical social work practice. Prerequisites: Graduate standing or permission of the instructor.

SOW 5629 Social Work Practice with Diverse Populations (3). Prepares students for responsive practice with diverse populations, with emphasis on South Florida. Includes knowledge and skills in interviewing, assessment interventions, termination, and follow-up. Prerequisite: SOW 5342.

SOW 5635* School Social Work Practice (3). Designed to assist students in developing knowledge and skills necessary for effective social work practice in school settings. Promotes understanding of social work practice to improve the functioning of children. Prerequisites: Graduate or permission of instructor.

SOW 5640* Foundations in Gerontology for Health Professions (3). Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

SOW 5641* Understanding the Process of Aging (3). Study of the physical, psychosocial, and cultural factors affecting human development in late life, from a social work perspective. Prerequisites: Graduate or senior standing and permission of the instructor.

SOW 5672* Animal Assisted Treatment for Social Work (3). An introduction to the human animal bond and animal assisted treatment. There will be illustrations of programs using small animals, horses, and dolphins. Prerequisites: Graduate or permission of instructor.

SOW 5710* Current Issues in Addiction Practices (3). An overview of chemical dependency in the social service delivery system including policy and program approaches, client assessment, treatment techniques and prevention issues. Prerequisites: Graduate or Senior standing.

SOW 5805C* Counseling the Elderly (3). Applied gerontological knowledge to counseling skills required for independent as well as frail elderly clients. Course focuses on long and short term interventions in a range of practice settings. Prerequisites: Graduate or senior standing.

SOW 5905* Individual Study (1-3). Individually selected program of advanced supervised study related to specific issues in social work and social welfare. Prerequisite: Permission of the instructor.

SOW 5932* Seminar in Social Work (3). An exploration of various critical issues of concern to the social work profession. Prerequisites: Graduate or senior standing.

SOW 6114C* Assessment and Treatment of Addiction and Related Problems (3). Course provides increased understanding of treatment for addictive disorders including assessment, therapeutic techniques and supportive aftercare as well as community consultation and referral skills. Prerequisite: SOW 5710.

SOW 6125 Human Behavior and the Social Environment II-Psychopathology (3). Study of the psychosocial aspects of client problems, including psychopathology, frequently encountered by social workers in direct practice with attention to differential treatment issues. Prerequisites: SOW 5105 and 2nd year or advanced standing status.

SOW 6236 Social Welfare Policy and Services II (3). This course offers students the opportunity to gain in-depth knowledge about social welfare policy-making processes and their impact on the social service delivery system. Prerequisite: SOW 5235 and 2nd year or advanced standing.

SOW 6243* Child and Family Social Policy Issues (3). A comprehensive overview of the range of children and family policies, programs and issues in the U.S.A. in the context of comparing residual and institutional approaches to social service delivery, and policy implications for use of each approach.

SOW 6245* Social Welfare Policies and Services to the Elderly (3). The content of the course will center around the federal/state policies affecting the quality of life of the older person. Among the areas to be considered are an overview of the situation of the aged, specific public and private social welfare policies, including the origin of policy making, and problems involved in the process of implementation of social welfare policies for the elderly.

SOW 6281* Legal Aspects of Social Work Practice (3). Introduction to legal aspects of social work practice including client and agency rights, malpractice issues, legal research, and practice interaction with legal counsel, legal services, and the courts.

SOW 6351 Clinical Intervention in Couple and Family Social Work Practice (3). This course will provide students with an understanding and application of the major models of social work intervention in working with marriages and families, with critical analysis skills in

assessing functioning across the life span and in implementing intervention techniques. The influence of cultural/ethnic differences and how these may affect family relationships and functioning will be assessed. Prerequisite: SOW 6533 and SOW 6425 Assess. And Intervention. Corequisite: SOW 6534.

SOW 6359* Social Work Treatment with Families of the Elderly (3). Preventive and treatment approaches in social work practice with families of the elderly. Focus on aging family as client-system; knowledge, skills needed for a range of interventions are provided.

SOW 6372* Supervision, Consultation and Staff Development (3). Key aspects of the social services supervisory situation are explored. This course emphasizes supervisory competence, issues facing supervisor and supervise. Also explores consultation and staff development.

SOW 6386* Social Program Planning and Development (3). Theory and practice of social program planning and development for organizations and communities. Social services to families, children and elderly, especially service needs for which programs do not exist will receive special emphasis.

SOW 6387* Social Services Management Skills (3). Learning units in which students practice and demonstrate, through simulation and participation, skills in major aspects of social services management.

SOW 6425 Clinical Assessment and Intervention Planning (3). Critical analysis of assessment models, the current issues, skills of assessment and intervention planning, including the evidence basis of assessment practice. Prerequisites: SOW 5324 and SOW 5532 or advanced standing. Corequisite: SOW 6533.

SOW 6435 Evaluating Empirically Based Social Work Practice (3). This course focuses on research designs and measurements for evaluating social work practice building on empirically-based approaches. Prerequisites: Admission to concentration or permission of the instructor.

SOW 6436* Empirically-Based Practice in Social Work (3). Advanced utilization of intervention effectiveness research results and techniques in social work practice with individuals, families and groups. Prerequisites: SOW 6435 and an advanced practice course.

SOW 6533 Clinical Practicum II (3). The first part of two masters-level advanced field practicum courses and integrative seminars that provide students with the opportunity to apply and integrate advanced clinical knowledge and skills. This course is only offered in the Fall semester. Prerequisites: A BSW/BSSW degree and admission to the Advanced Standing Program or satisfactory completion of Clinical Practicum I, SOW 5532, SOW 5342, and SOW 5629. Corequisite: SOW 6351. Pre-or-Corequisites: SOW 6125, SOW 6435, and SOW 6236.

SOW 6534 Clinical Practicum III (6). The second part of two masters-level advanced field practicum courses and integrative seminars that provide students with the opportunity to apply and integrate advanced clinical knowledge and skills. Prerequisites: SOW 6533-Clinical Practicum II, SOW 6351, SOW 6435, SOW 6125, and SOW 6236. Corequisite: SOW 6655.

SOW 6611* Advanced Practice with Family Systems (3). Advanced clinical skills in working with families and couples. Focus will be given to non-traditional change strategies such as family sculpting, family reenactment, family choreography and dramatization. Extensive use of video taped case simulations, co-therapy, live supervision and peer evaluation models. Prerequisites: SOW 6351 or permission of the instructor.

SOW 6646* Social Work Practice with the Elderly (3). The knowledge and skills necessary for advanced social work practice in social agencies which deal with problems and issues of the aging population in contemporary society.

SOW 6647* Advocacy in Social Work Practice (3). This course covers skills and knowledge necessary for the practice of advocacy on behalf of individuals and groups, including political, legislative, and organizational perspectives.

SOW 6649* Social Work Practice in Long Term Care and the Elderly (3). This course focuses on direct practice with the frail elderly and their families within the rapidly changing system of community and institutional long term care.

SOW 6655* Clinical Intervention in Child and Adolescent Social Work Practice (3). This course will provide students with the opportunity to select, apply and evaluate appropriate intervention strategies in working with children and adolescents. Specific attention to socio-cultural, gender and racial differences in understanding development issues and in critically assessing the applicability of practice theories. Prerequisites: SOW 5324, SOW 5532, or advanced standing program.

SOW 6656* Decision-Making in Child Placement (3). This course will stress decision-making and interventions when substitute care is considered or carried out. Termination of parental rights and the choice and timing of placements of children will be considered.

SOW 6711* Prevention of Addiction and Related Problems (3). Course provides increased understanding of substance abuse prevention including history and effective approaches as well as skills to reinforce healthy lifestyles and identify early potential problems. Prerequisite: SOW 5710.

SOW 6914* Independent Research (1-6). Individually selected program of supervised data collection and analysis on specific topics in social work and social welfare. Prerequisites: SOW 5404 and permission of the instructor.

SOW 7216 Social Welfare Policy (3). Using a systemic approach and focusing on high-risk populations, this course analyzes the social welfare policy-making process and its impact on public and private social service delivery systems. Prerequisites: Admission to Ph.D. program or permission of the instructor.

SOW 7237 Micro-Practice Theory and Research (3). Analysis of research priorities in the development of effective interventions in the social welfare field. Prerequisites: Admission to Ph.D. program or permission of the instructor.

SOW 7238 Macro-Practice Theory and Research (3). This course focuses on intervention theory research and methods at the community, organizational and societal level. Prerequisites: Admission to Ph.D. program or permission of the instructor.

SOW 7406 History and Systems of Social Work Research (3). Development, dissemination, and utilization of Social Work Research; the social work research tradition; types of research questions in Social Welfare; past and current contextual influences on social work research.

SOW 7492 Theory Development and Research Methods in Social Welfare (3). The logic of social research, role of theory in social welfare research, range and limitations of research methods, ethical issues. Students begin work on their doctoral research proposal. Prerequisites or Corequisites: STA 6166 or equivalent. Prerequisites: Admission to Ph.D. program or permission of the instructor.

SOW 7493 Research Methods in Social Welfare II (3). This second course in a two-semester sequence focuses primarily on design, measurement, and analysis issues in ethno-graphic field studies, surveys and group experiments for the evaluation of intervention technology in social welfare. Prerequisites: SOW 7492 and STA 6166, or equivalent.

SOW 7916 Supervised Research (3). Directed experience in the conduct of research in social welfare and social work under the guidance of a faculty member. Must be taken twice for a total of six credits. Prerequisite: Completion of first year.

SOW 7932 Interdisciplinary Seminar on Social Welfare Within an Urban Milieu (3). Academics from social work and allied disciplines and professions will discuss their theoretical interests and research activities. Prerequisite: Successful completion of first year of Doctoral program.

SOW 7936 Dissertation Seminar in Social Welfare (3). This course focuses on helping students with the development of the dissertation prospectus. Emphasis is placed on development of an acceptable research protocol in the students' specialization area. Prerequisites: SOW 7215, SOW 7237, SOW 7238, SOW 7492, and SOW 7493.

SOW 7980 Ph.D. Dissertation (1-12). This course provides dissertation guidance to doctoral candidates in the Ph.D. program in Social Welfare. Prerequisites: Permission of Major Professor and Doctoral Candidacy.

*Social Work Electives

Criminal Justice

Lisa Stolzenberg, Associate Professor and Director

Joseph Byrnes, Instructor

Ellen G. Cohn, Associate Professor

Stewart D'Alessio, Associate Professor

Jamie L. Flexon, Assistant Professor

Rob Guerette, Assistant Professor

Suman Kakar, Associate Professor

Ramiro Martinez, Professor

Juan Saiz, Visiting Instructor

Luis Salas, Professor

W. Clinton Terry, Associate Professor

Carleen Vincent, Instructor

Master of Science in Criminal Justice

Admissions Requirements

Applicants to the Master of Science in Criminal Justice program must have earned a bachelor's degree from an accredited institution with a minimum GPA of 3.0 (on a 4.0 scale) in all upper division coursework. For those students not meeting the 3.0 GPA requirement, conditional admission to the program may be granted if the student has a minimum GPA of 2.8 in all upper division undergraduate coursework. Those conditionally admitted must complete 12 graduate credits (including PAD 6701) within two semesters of conditional admission and achieve a minimum graduate GPA of 3.25. Meeting the minimum requirements does not guarantee admission to the program.

An applicant who feels the earned GPA is not indicative of his or her ability to be successful in a graduate degree program may also submit scores on the Graduate Record Examination (GRE), which will be taken into consideration by the admission committee in its evaluation of the application.

Degree Credit Requirements

The Master of Science degree in Criminal Justice requires 36 credit hours (12 courses). All students entering the program are required to complete five courses (15 credits) of core requirements, four electives (12 credits) in criminal justice, and three courses (9 credits) in a public administration specialization or general electives.

Core Requirements

All candidates must take five core courses (15 credits)

CCJ 5106	Law and Social Control	3
CCJ 5479	Seminar in Administration of Justice	3
CCJ 6025	Theory in Administration of Justice	3
URS 6155	Quantitative Methods for Policy and Management	3
PAD 6726	Applied Research Methods for Accountability in Public and Non-Profit Organizations	3

Criminal Justice Electives

Four courses (12 credits). All elective credits must be earned at the graduate level (i.e., course numbers of 5000 and higher). Advanced students intending to enroll in a doctoral degree program are strongly encouraged to complete CCJ 6915 Supervised Research.

Public Administration Specialization

Three courses (9 credits). This specialization is highly recommended for administrators or future administrators in the criminal justice system.

Select three of the following public administration courses:

PAD 6053	Political, Social and Economic Context of Public Administration	3
PAD 6227	Public Finance and the Budgetary Process	3
PAD 6605	Administrative Law and Procedures	3
PAD 6306	Policy Analysis and Program Planning	3
PAD 6434	Leadership and Decision Making	3

General Electives

Students not enrolling in the public administration specialization must select three additional elective courses (9 credits). These courses may be taken outside of criminal justice, if no credits have been transferred in from another degree program or included in a joint degree program. All courses taken from outside fields must be relevant to criminal justice and approved by the Graduate Advisor. All elective credits must be earned at the graduate level (i.e., course numbers of 5000 and higher).

Graduation Requirements

To receive the Master's degree in Criminal Justice, a student must satisfy all University regulations governing graduate study. All students must be admitted to candidacy and complete the five core courses, four electives in criminal justice, and three courses in public administration specialization or general electives. A minimum graduate GPA of 3.0 is required.

Combined Bachelor's/Master's Degree in Criminal Justice

The combined bachelor's/master's degree program is designed for superior undergraduate students who have the ability to pursue an accelerated program in criminal justice leading to the Master of Science in Criminal Justice. The main feature of the program is that up to 12 semester hours of approved graduate level criminal justice courses (i.e., course numbers of 5000 and higher) may be used as dual credit for both the undergraduate and graduate degree. All other requirements for both the bachelor's degree and the master's degree must be met.

Applicants to the program should apply to both the graduate program and the combined program by the end of the first semester of the senior year and will present:

1. Completion of at least 24 hours at FIU (including at least 12 semester hours of Criminal Justice) with a GPA of 3.2 or better,
2. Obtain a letter of recommendation from a faculty member at FIU or a supervisor, and
3. Demonstrate graduate level writing competency by submitting an essay three to five pages in length that addresses personal and career goals.

Admission to the program will be determined jointly by the Program Director, the Dean, or designee. After admission into the accelerated program, students will:

1. Obtain approval by the Program Director of a proposed program of study to fulfill the requirements for both the B.S. and M.S. degrees, which may include up to 12 semester hours of approved graduate

- level course work as dual credit toward both degrees, and
- Maintain a cumulative GPA of 3.2 or better in all course work, and a GPA of 3.2 or better in criminal justice course work.

Juris Doctor/Master of Science in Criminal Justice Joint Degree Program

The faculties of the College of Law and the School of Criminal Justice at Florida International University have approved a joint degree program culminating in both a Juris Doctor degree (JD), awarded by the College of Law, and a Master of Science in Criminal Justice degree (MSCJ), awarded by the School of Criminal Justice. Under the joint degree program, a student can obtain the degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

- Candidates for the program must meet the entrance requirements for and be accepted by both programs. Both programs must be informed by the student at the time of application to the second program that the student intends to pursue the joint degree.
- The joint degree program is not open to students who have already earned a JD or a MSCJ.
- For law students, enrollment in the MSCJ program is required no later than the completion of 63 credit hours in the JD program. For MSCJ students, enrollment in the JD program is required no later than the completion of 22 credit hours in the MSCJ program.
- A student must satisfy the curriculum requirements for each degree before either degree is awarded. The School of Criminal Justice will allow 12 credit hours of College of Law criminal law and jurisprudence courses to be credited toward both the MSCJ and JD degrees. These 12 credit hours of law classes will be in lieu of four elective courses. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the JD degree for courses taken in the MSCJ curriculum upon completion of the MSCJ degree with a grade point average of 3.0 or higher. Subject to prior approval, law school students are normally allowed 6 credit hours from graduate level courses offered by other units of the University as counting toward the JD degree.
- A full-time law student enrolled in the joint degree program may spend the first year in either the College of Law or the School of Criminal Justice. A part-time law student enrolled in the joint degree program may begin the student's studies in either program, but must take the first three semesters of law study consecutively. Students admitted to one program may enter the second program thereafter without once again qualifying for admission so long as they have notified the second program before the end of the first week of the first semester in the second program and are in good academic standing when studies commence in the second program.
- A student enrolled in the joint degree program will not receive either degree until the student has satisfied all of the requirements for both degrees, or until the student has satisfied the requirements of one of the degrees as if the student had not been a joint degree candidate.

- Students in the joint degree program will be eligible for the graduate teaching assistantships and research assistantships in the School of Criminal Justice on the same basis as other MSCJ students, subject to the guidelines and restrictions set by the School of Criminal Justice.

Master of Science in Criminal Justice/Master of Public Administration Joint Degree Program

The School of Criminal Justice and the School of Public Administration have a joint degree program culminating in both a Master of Science in Criminal Justice (MSCJ) and a Master of Public Administration (MPA). The joint degree program prepares graduate students for overlapping careers in criminal justice and public management. It is intended to prepare students for positions in public, private, and nonprofit organizations that require both criminal justice and management knowledge. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Important criteria relating to the joint degree program are as follows:

- Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate in the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.
- Applicants for a joint degree will not be accepted from candidates who have already completed either degree. MSCJ or MPA students must apply and be admitted by no later than the second to last semester in which they are expected to complete their original degree requirements.
- Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.
- The joint degree required a total of 60 credit hours (20 courses). Candidates are required to complete the 14 core courses (42 credits) included in the MSCJ and MPA programs, four criminal justice electives (12 credits), and two general electives (6 credits). Advanced students intending to enroll in a doctoral degree program are strongly encouraged to complete CCJ 6915 Supervised Research. General electives taken from outside fields must be relevant to criminal justice or public administration and approved by the Graduate Advisor.

Course Descriptions

Definition of Prefixes

CCJ-Criminology and Criminal Justice; CJC-Corrections; CJE-Law Enforcement; CJL-Law and Process; PAD-Public Administration; URS-Urban Regional Studies.

CCJ 5040 Comparative Crime and Criminal Justice Systems (3). Analysis of comparative crime and criminal justice systems. Emphasis on understanding crime, criminology, and criminal justice systems from international

and cross-cultural perspective. Focus on U.S., European, Asian and African criminal justice systems.

CCJ 5056 History of the American Criminal Justice System (3). Focuses on the history and evolution of the American criminal justice system.

CCJ 5106 Law and Social Control (3). This course examines law as an instrument of social control and the legal basis of criminal law. The legal limitations on criminal justice institutions and policies are also considered.

CCJ 5285 Advanced Seminar in Courts (3). Presents an analysis and evaluation of courts and the roles and interactions of decision-makers in the criminal justice system.

CCJ 5288 Legal Issues for Criminal Justice Administration (3). Presents an assessment and analysis of important legal and social issues that are likely to confront criminal justice leaders.

CCJ 5347 Correctional Intervention Strategies (3). An overview and critical assessment of treatment and rehabilitation programs in corrections, including prisons, probation and parole, halfway houses, and pre-trial programs. Relevant research will be reviewed.

CCJ 5479 Seminar in Administration of Justice (3). This course provides students with a critical understanding of the responses to crime. Emphasis is placed on theory and research relating to the effectiveness of the criminal justice system.

CCJ 5525 Seminar in Juvenile Delinquency (3). Focuses on the nature, scope, and causes of delinquency; considers problems of the assessment and measurement of delinquency. The philosophy, procedures, and effectiveness of the juvenile courts will be examined, including abuse, dependency, neglect, delinquency, and family law.

CCJ 5669 Minorities in Justice Administration (3). Focuses upon the disparity in outcomes for minority groups (i.e. racial/ethnic/sexual) across the criminal justice system, and on alternative explanations for those differences in outcome. Also, issues related to the hiring and promotion of minority groups who work in the criminal justice system will be discussed.

CCJ 5935 Special Topics (3). An intensive analysis of a particular topic in criminal justice not otherwise offered in the curriculum. Topics may change each term, but may include organized crime, white collar and political crime, victimology, ethics, terrorism, sentencing, information systems, and other topics based on student interest or current concern. May be repeated. Prerequisite: Graduate Standing.

CJC 5320 Corrections and Correctional Management (3). The course focuses on current critical issues and problems in the management of adjudicated offenders in correctional systems. The organization and administration of community and institutional corrections agencies will be reviewed and their performance analyzed.

CJE 5024 Violent Crime & Criminal Behavior (3). This course deals with violent criminal behavior and the criminal justice system's reaction to violence.

CJE 5025 Police Organization, Behavior, and Administration (3). Analysis of the organization and administration of police departments and their effects on police behavior.

CJL 5076 Legal Aspects of Corrections (3). A study of the contemporary legal rights of convicted offenders, including the impact of litigation on offenders, correctional agency personnel and operations, and other justice agencies. Case law and statutes will be reviewed within the context of the punishment and/or rehabilitation of the offender.

CJL 5422 Advanced Seminar in Criminal Law and Procedure (3). Presents an intensive study of constitutional issues as they relate to the administration of criminal justice.

CCJ 6025 Theory in Administration of Justice (3). The study of theoretical and research issues related to the nature and causes of crime and the administration of justice.

CCJ 6456 Administration and Management of Criminal Justice Agencies (3). An examination of the criminal justice system from the perspective of administrative and management theory. Emphasis is upon the identification of organizational and administrative problems and their solutions.

CCJ 6485 Criminal Justice Policy Analysis (3). This course is designed to familiarize students with criminal justice policy by providing an overview of the formation, implementation, quantitative and qualitative evaluation, and ethical aspects of policy making in the criminal justice system.

CCJ 6665 Victimology and the Criminal Justice System (3). An examination of the relationship of victims and offenders and the manner in which the criminal justice system responds to victims of crime.

CCJ 6915 Supervised Research (3). Directed experience in the conduct of research in criminal justice under the guidance of a faculty member. Must be repeated for a total of six credits. Prerequisites: CCJ 5479, CCJ 5106, CCJ 6025, PAD 6701, and PAD 6726.

CJJ 6040 Juvenile Justice Administration and Policy Analysis (3). This course is designed to provide students with an understanding of the juvenile justice system administration and the various cases and legislative initiatives that have affected juvenile justice.

PAD 6053 Political, Social and Economic Context of Public Administration (3). Examines the context in which public organizations operate, stressing the relationship between such organizations and their multifaceted environment. Emphasis is on examining relevant social and cultural mores and patterns, political values and processes, governmental institutions, economic systems, resource availability, and other environmental factors currently significant to public organizations.

PAD 6227 Public Finance and the Budgetary Process (3). Examines the theory and practice of public budgeting and its relationship to the administrative processes of control, management and planning. Special emphasis will be given to the social balance question; the kinds and scope of government expenditures; the fiscal role of

government in a mixed economy; sources of revenue available to government; administrative, political and institutional aspects of the budget and the budgetary process; and problems and trends in intergovernmental financial relations

PAD 6306 Policy Analysis and Program Planning (3).

This course presents techniques and tools for the practice of policy analysis in public, nonprofit, and health organizations, with emphasis on constructing policy analysis useful to decision makers. Prerequisites: PAD 6701 or equivalent

PAD 6434 Leadership and Decision-making (3).

Readings and case studies examine how effective leaders in the public and non-profit sectors make decisions in fluid and challenging environments.

PAD 6605 Administrative Law and Procedures (3).

Emphasizes the responsibilities public administrators have under local, state, and federal laws. Explores such concepts as client responsiveness under the law; the regulatory process; state administrative law systems; the executive order process; the relationship between administrative law and the checks-and-balances system; discretionary justice; and others

PAD 6701 Quantitative Methods in Public

Administration (3). An intensive introduction to statistical and forecasting tools appropriate for public, nonprofit, and health professionals. Prerequisites: Background in college level statistics and computer literacy are strongly encouraged

PAD 6726 Applied Research Methods for Accountability in Public and Nonprofit Organizations

(3). Tools, methods, and concepts employed to reengineer public and nonprofit agencies and to design performance indicators needed to enhance customer satisfaction and strategic service delivery. Prerequisite: PAD 6701.

Public Administration

Ronald M. Berkman, *Professor and Provost*

Ray J. Thomlison, *Professor and Dean*

Meredith Newman, *Professor and Director*

Esteban Dalehite, *Assistant Professor*

Howard Frank, *Associate Professor*

Jean-Claude Garcia-Zamor, *Professor*

Emel Ganapati, *Assistant Professor*

Sukumar Ganapati, *Assistant Professor*

Edward Murray, *Assistant Professor*

Valerie Patterson, *Assistant Professor*

Lourdes Rassi, *Associate Professor and Associate Dean*

Keith Revell, *Associate Professor*

Allan Rosenbaum, *Professor and Acting PhD Coordinator*

Master of Public Administration

The Master of Public Administration prepares students for careers in public service and non-profit organizations. It also prepares students for private sector positions having significant contact with public organizations. The degree provides pre-service and mid-career students with an appropriate mix of technical and generalist skills needed for management and analytic positions in local, state, and federal government, as well as non-profit organizations. Students are given broad exposure to the field in the core and subsequently develop expertise within their areas of specialization. The degree also provides students with the necessary analytic and substantive background for successful pursuit of doctoral studies within the discipline. Graduates are well-prepared for positions as city manager, finance director, budget analyst, personnel director, special project coordinator and program analyst.

The MPA Program in Public Administration is accredited by the National Association of Schools of Public Affairs and Administration. Accreditation by this agency ensures the student that the program has been reviewed and meets the national standards for graduate studies in the field.

Admission Requirements

Applicants to the Master of Public Administration (MPA) program must:

- Have earned a bachelor's degree from an accredited institution **and**
- Earn a GPA of 3.0 or better in all upper division course work **and**
- Obtain a letter of recommendation from a faculty member at their undergraduate institution or from a supervisor **and**
- Demonstrate graduate level writing competency by submitting an essay between 3 and 5 pages in length addressing personal and career goals.

Exceptions to the graduate admissions requirement

The MPA program offers certificate programs. In accordance with University policy, students with a bachelor's degree from an accredited institution **and** who have an undergraduate GPA of 2.75 or greater can be admitted to a public administration graduate certificate program, subject to the approval of the MPA Program Director or designee. Students admitted to a certificate program who have completed 12 graduate certificate credits with a 3.25 or better GPA may be admitted to the

MPA program, subject to the approval of the program Director or designee. The full 18 credits obtained in a MPA Graduate Certificate Program may be used to satisfy requirements of the MPA degree, provided the student is admitted to the MPA program **prior** to the completion of the final six graduate certificate credit hours required to obtain the certificate.

Degree Requirements

The Master of Public Administration (MPA) program requires 42 credit hours for all students not having a BPA from a public university in the State of Florida. Students having earned a BPA from a public university in the State of Florida will be waived from taking six elective credits. Core level waivers can only be approved by the Public Administration Program Director or designee.

Core Courses

The MPA core consists of the following eleven courses:

PAD 6053	Political, Social and Economic Context of Public Administration	3
PAD 6056*	The Practice of Public Management	3
PAD 6227	Public Finance and the Budgetary Process	3
PAD 6417	Human Resource Policy and Management	3
PAD 6306	Policy Analysis and Planning	3
PAD 6701	Quantitative Methods in Public Administration	3
PAD 6434	Leadership and Decision-making	3
PAD 6726	Applied Research Methods for Accountability in Public and Non-Profit Organizations (Prerequisite: PAD 6701)	3
PAD 6142	Management of Non-Profit Organizations	3
PAD 6209	Financial Management in Public and Nonprofit Organizations (Prerequisite: PAD 6227)	3
PAD 6710	IT and E-Government	3
PAD 6053, PAD 6701, and PAD 6726, must be taken during the first 18 credit hours of course work.		
PAD 6701 is a prerequisite for PAD 6726.		

*PAD 6056, The Practice of Public Management is a capstone experience for the program and must be taken during the last semester of course work.

Electives (9)

Three (3) elective courses required.

Grading, Sequencing, and Substitution Policy

Students must maintain a 3.0 cumulative graduate GPA to graduate. A grade of 'C' or better is required for every core course. Note: A 'C-' is not acceptable.

The program reserves the right to withhold the awarding of credit for course work taken out of sequence and without appropriate prerequisites.

Any core course with the exception of PAD 6056 may be waived through petition to the Program Director or designee. The petitioner must demonstrate the equivalence of the previous coursework, and prove that their performance met or exceeded core requirements.

PAD 6946, Public Administration Internship, may be used as an elective.

Master of Health Services Administration/ Master of Public Administration Joint Degree Program

Professionals in Public Administration and in Health Services Administration have expressed a substantial need to better understand both fields. Health services account for the largest category of expenditures in local and state governments, resulting in the need for public administrators who also are familiar with Health Services Administration. The vast majority of health services are provided by non-profit or government owned entities, resulting in the need for health services administrators who understand government administration. The Joint MHSA/MPA Degree responds to these needs.

This degree is the result of a joint effort by the Graduate Program in Health Services Administration in the School of Public Health and the Graduate Program in Public Administration in the School of Public Administration. Both programs are fully accredited.

The Graduate Program in Health Services Administration is accredited by the Accrediting Commission on Education for Health Services Administration (ACEHSA). The Graduate Program in Public Administration is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA). Accreditation by these agencies ensures the student that the programs have been reviewed and meet the national standards for graduate studies in these fields.

The Joint MHSA/MPA degree prepares students for careers in public service and non-profit organizations, including management careers in health services organizations. It also prepares students for private sector positions having significant contact with public organizations. The degree addresses the theories and issues of managing complex organizations in both public and private settings.

The program is designed to meet the needs of the working student. Many individuals enrolled are already employed in administrative roles in government and health services delivery. While enhancing their career, they bring the value of their experience to the classroom.

Listed below are the courses and credits required for the joint degrees:

Health Services Administration Core MHSA Courses

Group 1			
HSA 5125	Intro to Health Service	3	
HSA 6415	Managerial Applications of the Social Determinants of Health	3	
HSA 6176	Financing and Reimbursement of Health Systems	3	
PAD 6701**	Quantitative Methods in Public Administration	3	
Group 2			
HSA 6155	Health Policy and Economics	3	
PAD 6156**	Applied Organizations Theory and Behavior	3	
Group 3			
HSA 6149	Strategic Planning and Marketing of Health Care Services	3	
URS 6417**	Human Resource Policy and Management	3	

HSA 6197	Design and Management of Health Information Systems	3	
HSA 6185	Health Services Organization and Management I	3	
Health Services Specialization*		3	
Group 4			
HSA 6930	Professional Seminar in Health Services Management	1	
HSA 6426	Health Law and Legal Aspects of Management	3	
HSA 6717	Advanced Health Services Management and Research Seminar	3	
Total MHSA		<u>37</u>	

Public Administration Core MPA Courses

Group 1			
PAD 5256	Public Economics and Cost Benefit Analysis	3	
PAD 6227	Public Finance and the Budgetary Process	3	
PAD 6306	Policy Analysis and Program Planning	3	
PAD 6701**	Quantitative Methods in Public Administration	3	
Group 2			
PAD 6434	Leadership and Decision-making	3	
PAD 6436	Professionalism and Ethics	3	
PAD 6156**	Applied Organizations Theory and Behavior	3	
URS 6806	Applied Research and Evaluation Techniques	3	
Group 3			
URS 6130**	Human Resource Policy and Management	3	
Health Services Specialization*			
Specialization		3	
Group 4			
Specialization		3	
PAD 6056	The Practice of Public Management	3	
Total MPA		<u>30</u>	

****Total Courses for Joint Degree (67 credits).**

***HSA 6977 or HSA 6875 – one of these courses must be taken.**

Juris Doctor/Master of Public Administration Joint Degree Program

The faculties of the College of Law and the College of Social Work, Justice, and Public Affairs have approved a joint degree program culminating in both a Juris Doctor degree (J.D.), awarded by the College of Law, and a Master of Public Administration degree (MPA), awarded by the School of Public Administration. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

1. Candidates for the program must meet the entrance requirements for and be accepted by both programs. Both programs must be informed by the student at the time of application to the second program that the student intends to pursue the joint degree.

2. The joint degree program is not open to students who have already earned one degree.

3. For law students, enrollment in the MPA program is required no later than the completion of 63 credit hours in

the J.D. program. For MPA students, enrollment in the J.D. program is required no later than the third semester after beginning the MPA program. A summer session is counted as half a semester.

4. A student must satisfy the curriculum requirements for each degree before either degree is awarded. The School of Public Administration will allow 9 credit hours of College of Law courses, as approved by the MPA program Director, in consultation with the Dean of the College of Social Work, Justice and Public Affairs, to be credited toward both the MPA and J.D. degrees..

5. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the J.D. degree for courses taken in the MPA curriculum upon completion of the MPA degree with a grade point average of 3.0 or higher.

6. A student accepted by both degree programs may begin studies in either the College of Law or the School of Public Administration, but full-time law students must take the first two semesters of law study consecutively and part-time law students must take the first three semesters of law study consecutively. Students electing to begin study in one school under the joint degree program may enter the second school thereafter without once again qualifying for admission so long as they have notified the second school before the end of the first week of the first semester in the second school and are in good academic standing when studies commence in the second school.

7. A student enrolled in the joint degree program will not receive either degree until the student has satisfied all of the requirements for both degrees, or until the student has satisfied the requirements of one of the degrees as if the student had not been a joint degree candidate.

Master of Science in Criminal Justice/Master of Public Administration Joint Degree Program

The School of Criminal Justice and the School of Public Administration have a joint degree program culminating in both a Master of Science in Criminal Justice (MSCJ) and a Master of Public Administration (MPA). The joint degree program prepares graduate students for overlapping careers in criminal justice and public management. It is intended to prepare students for positions in public, private, and nonprofit organizations that require both criminal justice and management knowledge. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Important criteria relating to the joint degree program are as follows:

1. Candidates to the joint degree program must meet the entrance requirements established by each individual program. Candidates must indicate in the application their intention to pursue the joint degree option. Students deciding to pursue the joint degree option after having been admitted to one program will indicate this intention only on their second application.
2. Applicants for a joint degree will not be accepted from candidates who have already completed either degree. MSCJ or MPA students must apply and be admitted by no later than the second to last semester in which they are expected to complete their original degree requirement.

3. Joint degree candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree candidate.
4. The joint degree requires a total of 60 credit hours (20 courses). Candidates are required to complete the 14 core courses (42 credits) included in the MSCJ and MPA programs, four criminal justice electives (12 credits), and two general electives (6 credits). Advanced students intending to enroll in a doctoral degree program are strongly encouraged to complete CCJ 6915 Supervised Research. General electives taken from outside fields must be relevant to criminal justice or public administration and approved by the Graduate Advisor.

Doctor of Philosophy

The Doctor of Philosophy in Public Management (Ph.D.) is intended to prepare graduates for research and analytic positions in universities, public bureaucracies, and nonprofit organizations. Degree content provides a foundation for undertaking policy-oriented research with emphases on urban and comparative public management and criminal justice administration. Doctoral students will be expected to demonstrate the capacity for conducting this research through successful passing of coursework and comprehensive examinations, as well as the defense of dissertation.

Admission Requirements

Generally, applicants must have a Master's degree prior to program enrollment, though outstanding applicants may also be considered with only a baccalaureate degree. Admission is not restricted to students with prior course work in Public Administration and the Program encourages applicants with diverse academic backgrounds, with preference given to those with grounding in the policy or administrative sciences.

In order to be admitted to the Ph.D. program students must submit a complete University application and:

- Demonstrate excellence in prior academic work by an earned GPA of 3.5 or better in both the undergraduate degree and the graduate degree **and**
- Present official GRE scores, with a combined score of 1120 on the GRE's quantitative and verbal sections. A minimum of 500 on each of these components is required **and**
- Submit a written personal statement describing your background, career goals, and the reasons for pursuing a Ph.D. in Public Management **and**
- Indicate how your research and career interests fit with those of current public administration and criminal justice faculty **and**
- Provide a current resume **and**
- Submit three references using the program's recommendation form **and**
- Provide writing samples

In addition, students must demonstrate knowledge of American political institutions and fundamentals of social research methods and microcomputers.

Foreign applicants must demonstrate proficiency in the English language by presenting a minimum score of a 100

on the iBT TOEFL (equivalent to 600 on the paper-based Test of English as a Foreign Language (TOEFL)).

All students living within a 50-mile radius are strongly encouraged to interview with the Ph.D. Coordinator during the admissions process. Telephone interviews may be arranged for students living outside a 50-mile radius.

The admission process is competitive and the program considers all of the evidence in the application file in making its decision. Meeting the minimum requirements does not guarantee admission and applicants failing to meet the minimum requirements may be admitted based on other evidence of potential, such as prior research or senior executive status.

Admitted students may transfer a maximum of six semester credits (not included in another degree) from other institutions towards Ph.D. degree requirements. Admitted students must demonstrate competence in the following areas: descriptive statistics with regression, applied microeconomics and policy analysis, organization theory and design, social science research methods, personnel and workplace issues, and microcomputer literacy. The Program Coordinator may assign specific coursework to students with deficiencies in any of the above mentioned areas.

Financial Aid

The objective of financial aid is to provide direct assistance to those students who require financial assistance to complete their doctoral programs, and to enhance the reputation of the program by attracting an outstanding cadre of students.

To receive financial aid from University and Program sources, doctoral students must be enrolled full-time (9 semester hours during the term in which they receive financial aid). Students having graduate assistantships cannot hold other employment.

The exact amount of financial assistance depends upon funding provided by the University and the legislature. The current level of Program assistance is between \$9,000 and \$16,000 annually. Students on assistantships are eligible for tuition waivers. Assistantships do not cover additional student fees, such as health, parking, athletic fees, and per credit fees.

Program financial aid is awarded in one-year blocks, and is generally provided for up to three years of the student's doctoral study.

The University has a variety of other financial aid opportunities including graduate grants, scholarships, loans, work-study programs and targeted scholarships. Information on these and other opportunities are available through the University and College financial aid offices. To apply for assistance, students should notify the Ph.D. Coordinator of their intent at the time of application. For matriculation fee waivers and University assistance, students must file the University's Financial Aid Form (FAF) and the other University aid documents. Information on the university procedures is available in the financial aid office of the College of Social Work, Justice and Public Affairs and in the University's Financial Aid office.

Degree Requirements

To obtain the degree, admitted students must complete at least 69 semester hours beyond the Master's degree or its equivalent, including 45 semester hours of approved course work and 24 hours of dissertation work after admission to candidacy. In addition, there is a residency

requirement of at least 18 semester hours in three consecutive semesters of study during the first year of enrollment in the Ph.D. Program and a minimum of six hours required in all subsequent semesters, as set forth in the Doctoral Program in Public Management Handbook.

Successful completion of course work and passing scores on the comprehensive examination are required before students can advance to candidacy for the Ph.D. and present a dissertation proposal. Students are advised to consult the doctoral program handbook for any additional information regarding benchmarks for student progress in grade point average, course completion, comprehensive examinations and dissertation work.

Program of Study

The Doctor of Philosophy in Public Management is a 69 semester hour program with seven required courses (21 semester hours), seven specialization elective courses (21 hours), a comprehensive examination (minimum of three semester hours), and dissertation (24 semester hours).

During the first semester of the program, students are required to select, with the assistance and approval of the Ph.D. Coordinator, an advisor who is a full-time faculty member in the program. By the end of the first year, students are required to develop a program of study with the assistance and approval of their advisor and the Program Coordinator.

Core Curriculum: (21)

PAD 7277	Public Administration and the American Political Economy	3
PAD 7155	Organizational Development and Change in Public and Nonprofit Organizations	3
PAD 7808	Economic Development and Urban Management	3
(Crosslisted with PAD 5805 Economic Development and Urban Revitalization)		
PAD 7865	Development Administration	3
(Crosslisted with PAD 6838 Development Administration)		
PHC 6710	Qualitative Research Methods in Public Health	3
PHC 6709	Quantitative Research Analysis in Health and Urban Affairs I	3
PHC 6718	Quantitative Research Analysis for Health and Urban Affairs II	3

Specialization Courses: (21)

Students are required to take seven courses in an area of specialization to be designed with the advisor. Six of these courses must be at the 5000, 6000, or 7000 level and may be taken within the University. These specialization electives may also be especially designed courses developed in conjunction with the student's advisor and with approval of the Ph.D. committee. Specialization areas may include subfields within the discipline of public administration (human resource management; sub-national administration and policy, etc.) or may involve cognate disciplines (such as health services administration; criminal justice administration; environmental management; etc.). At least three hours must be URS 7926 (Supervised Readings), taken in conjunction with comprehensive examination preparation.

In developing a specialization and program of studies, students may consult with both public administration and criminal justice faculty. If the student's principal area of

interest is in a cognate discipline outside of the Schools of Public Administration and Criminal Justice, the student and Ph.D. Coordinator should consult with appropriate faculty in designing the program of studies.

Criminal Justice Administration

CCJ 5288	Legal Issues for Criminal Justice Administration
CCJ 6456	Administration and Management of Criminal Justice Agencies
CCJ 6485	Criminal Justice Policy Analysis
URS 7926	Supervised Readings

Select three additional criminal justice elective classes (i.e., at the 5000 level and above). Students who have not earned a master's degree in criminal justice must complete the following three classes in lieu of the electives:

CCJ 5479	Seminar in the Administration of Justice
CCJ 5106	Law and Social Control
CCJ 6025	Theory in the Administration of Justice

Comprehensive Examination

Subsequent to completion of course work, students are required to pass a two-part comprehensive examination. The first component of the comprehensive is a written examination testing for knowledge of the Ph.D. core and related material. The second component is the submission of a research deliverable that demonstrates competence in defining a research problem, and addressing that problem through empirical study.

Students who fail the Comprehensive Examination on the first attempt must retake the examination at its next offering. Students who fail the examination twice are automatically dismissed in accord with general University policy.

Dissertation: (24)

Upon successful completion of the comprehensive examination, students select their dissertation guidance committee and begin preparation of their dissertation proposal. Students are expected to defend their dissertation prospectus before the end of the first semester subsequent to passing the Comprehensive Examination.

Upon the public defense and approval of the proposal, the student will initiate formal work on the dissertation. During this time, the student is expected to make appropriate progress toward completing the dissertation, and to enroll continually (at least six credits per semester) until the degree is completed. Upon completion of the dissertation, candidates will formally defend the research at a meeting conducted by the Dissertation Committee. The degree will be awarded upon a positive recommendation of the Committee and compliance with all policies and procedures required by the University.

Award of Master's Degree to Ph.D. Candidates: Under certain circumstances, individuals directly admitted into the Ph.D. program following completion of their bachelor's degree, may be awarded a master's degree in public administration or criminal justice. To be eligible, a student must complete core requirements in the master's program. Upon certification by the student's advisor that this requirement has been met, the Ph.D. committee will approve the award of the master's degree upon passing of comprehensive examinations.

Certificates

The Program offers certificates in Human Resource Policy and Management and Public Management. Please refer to the Certificate section under the College for detailed information.

Course Descriptions

Definition of Prefixes

PAD-Public Administration; PAF-Public Affairs; PUP-Public Policy; URS-Urban and Regional Studies.

PAD 5041 Values and Technology in Modern Society

(3). Surveys personal and societal value assumptions in the context of the technological society. Examines organizational-societal value structures, and the ways in which technology creates rapid change and new alternatives in values. Also interrelationship of the past, present and future is explored, through futurism and forecasting techniques.

PAD 5043 Government and Minority Group Relations

(3). Explores the pressing contemporary issue of the relationship between government and minorities. Examines the clash between established institutional values and minority group values, and surveys remedial programs aimed at dealing with the problem. Comparative case studies will be used to analyze public agencies' internal relations with minorities (recruiting, selection, etc.), as well as their different responses to the minority groups they serve.

PAD 5256 Public Economics and Cost Benefit Analysis

(3). This course provides the quantitative and qualitative tools and case material to solve allocation problems in the public sector. Applied microeconomic theory, welfare economics, and market and government failure are analyzed as are the public alternatives available. Cost-benefit analysis, the ethics of applied practice, and the important skills of communicating with decision makers are included.

PAD 5416 Social Equity and Human Resource Management

(3). The course deals with the human resource management issues arising from equity and affirmative action requirements in the workplace.

PAD 5427 Collective Bargaining in the Public Sector

(3). The course deals with the nature and implications of collective bargaining for managers and employees in (and students of) public organizations. The course emphasizes similarities and differences between the private and public sectors, as they apply to collective bargaining.

PAD 5435 Administration and the Role of Women

(3). The course is designed for women and men who are interested in moving into management positions, or who have done so and want to broaden their understanding of the changing role of women. Classes will allow for experimental as well as academic exploration of the issues. The course will also explore design, implementation, and evaluation of affirmative action programs.

PAD 5443 The Public Administrator and Media Relations

(3). Surveys the government-mass communication media relationship, and then concentrates on the ways in which public managers handle media

relations. Emphasis throughout is placed on questions of information-handling unique to public organizations, involving, for example, adherence to Florida's Sunshine Law and the Federal Freedom of Information Act.

PAD 5460 Productivity Improvement (3). Provides measures to improve organizational and worker productivity using applied behavioral science.

PAD 5616 Contracting and Managing Third Party Governments (3). Analyzes the legal foundations, administrative and economic characteristics of government instrumentality's as they are used to pursue public policy. Analyzes how and why different combinations of instrumentality's are used in different policy areas.

PAD 5660C Applied Legal Context of Public Administrators (3). An overview of constraints and latitude the legal system grants to public administrators and managers. Provides the applied legal information required to make effective decisions in the public sector.

PAD 5661C Management of Court-Agency Relations (3). Examines applied judicial-administrative relations with particular emphasis on administrative policymaking. Covers the legal, environmental, and political factors that influence administrative strategies of policy and program compliance.

PAD 5805 Economic Development and Urban Revitalization (3). This course is an interdisciplinary examination of research and practice in contemporary economic development, with emphasis on successful implementation in a variety of settings.

PAD 5934 Contemporary Issues in Public Administration (3). An analysis of major conceptual issues currently facing public administrators. May be repeated for credit.

PAD 6042 Democracy and the Administrative State (3). Juxtaposes the contemporary administrative condition of American government with the values of the democratic state. Different approaches to democracy - in practice as well as in theory - will be analyzed, and their implications for public organizations and individual administrators examined.

PAD 6053 Political, Social and Economic Context of Public Administration (3). Examines the context in which public organizations operate, stressing the relationship between such organizations and their multifaceted environment. Emphasis is on examining relevant social and cultural mores and patterns, political values and processes, governmental institutions, economic systems, resource availability, and other environmental factors currently significant to public organizations.

PAD 6056 The Practice of Public Management (3). This capstone course for the MPA Program will deploy skills, concepts, and knowledge acquired in previous course work in analytic exercises related to students' areas of specialization. Prerequisites: Completion of MPA Core; last semester of course work status.

PAD 6106 Organization Theory and Administrative Behavior (3). Historical perspective and philosophical foundations of contemporary and emerging organization theory and administrative behavior, with emphasis on concepts of administrative leadership, the organization's

members and systems, group dynamics, socio-psychological aspects of organization and management.

PAD 6142 Management of Nonprofit Organizations (3). Studies the characteristics, roles, and challenges of nonprofit entities. Topics include structure and governance, financial reporting and accountability, financial development, and contract management.

PAD 6156 Applied Organization Theory and Behavior (3). Contemporary approaches to improving the overall effectiveness of public organizations through the utilization of the applied behavioral sciences: personal and executive development programs, team building, action research, etc. Survey of research on the effects of organizational development programs, with special reference to public organizations.

PAD 6205 Public Financial Management (3). Capital asset administration, debt administration, revenue systems, public employee retirement programs, purchasing, inventorying, and risk management.

PAD 6209 Financial Management in Public and Nonprofit Organizations (3). Processes, tools and methods used in financial planning and control of public and nonprofit entities with focus on utilization of critical performance indicators deployed over agency budget and life cycles. Prerequisite: PAD 6227.

PAD 6224 Advanced Seminar in Public Budgeting (3). A review of the state of the art in public budgeting, emphasizing conceptual areas for significant research and appropriate methodological design for addressing them. Prerequisites: PAD 6227, PAD 6229, and PAD 6205.

PAD 6225 Comparative Public Budgeting (3). Public budgeting is a common activity in all governments and international organizations. Covers the differences in budgeting and explores patterns implicit in those differences.

PAD 6227 Public Finance and the Budgetary Process (3). Examines the theory and practice of public budgeting and its relationship to the administrative processes of control, management and planning. Special emphasis will be given to the social balance question; the kinds and scope of government expenditures; the fiscal role of government in a mixed economy; sources of revenue available to government; administrative, political and institutional aspects of the budget and the budgetary process; and problems and trends in intergovernmental financial relations.

PAD 6229 Advanced Management Techniques (3). Explores quantitative revenue and expenditure models and other techniques which address public sector decision making under conditions of resource constraint. Prerequisites: PAD 6205 or permission of the instructor.

PAD 6306 Policy Analysis and Program Planning (3). This course presents techniques and tools for the practice of policy analysis in public, nonprofit, and health organizations, with emphasis on constructing policy analysis useful to decisionmakers. Prerequisites: PAD 6701 or equivalent.

PAD 6366 Policy and Program Implementation (3). This course examines and evaluates the legal, socio-political

administrative factors influencing the implementation of public policy and programs. Prerequisite: PUP 6015. (S)

PAD 6417 Human Resource Policy and Management

(3). The course focuses on the role of the personnel manager and how the manager performs tasks connected to human resources development, policy and management in public and nonprofit organizations.

PAD 6434 Leadership and Decision-making

(3). Readings and case studies examine how effective leaders in the public and non-profit sectors make decisions in fluid and challenging environments.

PAD 6436 Professionalism and Ethics

(3). Examines behavioral approaches toward understanding the personal world of public managers with emphasis on knowledge, skills, and abilities which aid effective goal accomplishment.

PAD 6437 Dynamics of Individual Growth

(3). This course focuses on the importance of small group theory to the personal growth of the administrator, and the role of interpersonal abilities in effectively serving client groups. The course also deals with the expansion of the phenomenological world view of each student; and will look at existential theory and the dilemma of personal growth.

PAD 6605 Administrative Law and Procedures

(3). Emphasizes the responsibilities public administrators have under local, state, and federal laws. Explores such concepts as client responsiveness under the law; the regulatory process; state administrative law systems; the executive order process; the relationship between administrative law and the checks-and-balances system; discretionary justice; and others.

PAD 6701 Quantitative Methods in Public Administration

(3). An intensive introduction to statistical and forecasting tools appropriate for public, nonprofit, and health professionals. Prerequisites: URS 4112 or equivalent.

PAD 6710 IT and E-government

(3). Studies the electronic delivery of government information and services and the problems of managing information technology in the public sector. Survey technology principles of IT and E-government.

PAD 6715 Public Monitoring Systems for Government Organizations

(3). Focuses on the formal information system which is or can be used to guide a public organization and judge its performance.

PAD 6717 GIS Applications for Urban Management

(3). Geographic Information System Applications for urban decision makers and social scientists.

PAD 6726 Applied Research Methods for Accountability in Public and Nonprofit Organizations

(3). Tools, methods, and concepts employed to reengineer public and nonprofit agencies and to design performance indicators needed to enhance customer satisfaction and strategic service delivery. Prerequisite: PAD 6701.

PAD 6807 Urban and Municipal Government Administration

(3). Detailed examination of problems facing the municipal administrator; of the pressures upon the contemporary urban environment; and of the

administration of large metropolitan areas comprised of numerous entities. Emphasis will be on determination of current trends, discussion of cases, and arrival at suggested solutions.

PAD 6816 Regional and State Government Administration

(3). Surveys the historical development of regional administration, analyzes present administrative problems of the states, and explores contemporary and suggested remedial policies. Emphasizes the complex problems of the institutional relationships among local, state and regional governments, and their implications for public policy-making.

PAD 6836 International Public Administration

(3). The role of public administration systems around the world; and the impact of political and socio-cultural frameworks on administration. Focus on national and state organizations' politics, economics, problems, and possibilities. A review of scope and programs of contemporary international public administration organizations.

PAD 6838 Development Administration

(3). The role of public administration in national development, with specific attention to theories of economic aid from external sources, and the effects of this aid. Theories and policies of economic and social development are explored; and particular attention is given to the role of the United States in strengthening administrative capabilities as an important means for achieving developmental goals in selected countries.

PAD 6839 Comparative Public Policy

(3). This course addresses policy formulation and implementation as a general process of administrative action that can be investigated among the varying nation-states. It covers the differences in policy and explores patterns implicit in those differences. Prerequisites: PAD 6836 or PAD 6838.

PAD 6907 Independent Study in Public Administration

(1-6). (Normally 3 credit hours) Individual conferences; supervised readings; reports on personal investigations and similar undertakings. Prerequisites: Completion of required courses in public administration is expected. Consent of faculty sponsor and Program Director required.

PAD 6915 Independent Research in Public Administration

(1-6). (Normally 3 credit hours) An individualized research project and report which, if feasible, should include field work with a public organization. Prerequisites: Completion of required courses in public administration is expected. Consent of faculty sponsor and Program Director required.

PAD 6946 Public Administration Internship

(1-6). (Normally 3 credit hours) Supervised work in a public or quasi-public organization. Should not be undertaken until completion of required courses in public administration program. Prerequisite: Approval of internship coordinator.

PAD 7026 Proseminar in Public Administration and Policy

(3). An intensive introduction to American Public Administration and Public Policy making and implementation by "The Fourth Branch" of government.

PAD 7055 Scope and Theory of Public Administration

(3). An integrative capstone seminar in which traditional models of Public Administration are explored and employed to analyze the structures and dynamics of public

organizations and to develop alternative models and new theoretical perspectives concerning the scope and theory of the field.

PAD 7102 Advanced Organization Theory (3). Philosophical foundations of contemporary organization theory, with emphasis on dynamic interfaces between the environmental contexts and organizations, critical analysis of both the normative and incremental orientation of concepts, theories, models, and applications. Prerequisites: PAD 6106 or equivalent.

PAD 7155 Organizational Development and Change in Public and Nonprofit Organizations (3). Explores the unique challenges to implementing effective management environments in public and nonprofit organizations. Emphasis on organizational diagnosis and performance measures.

PAD 7257 Economic Context of Government (3). This course examines interdisciplinary approaches to collective decision making and the delivery of public goods and services.

PAD 7277 Public Administration and the American Political Economy (3). An analysis of the origins and growth of the American administrative state within the broader socioeconomic and cultural context, with particular emphasis on the post-World War II era.

PAD 7607 Legal Context of Public Administration (3). This course analyzes the administrative significance of delegation, judicial review, rule making, freedom of information and sunshine laws, legislative veto, and liability for administrators. Prerequisite: PAD 6053.

PAD 7702 Empirical Methods in Public Administration (3). An advanced research/seminar practicum focusing on the development of theoretical models relevant to public administration and analytical techniques for testing these models. Particular attention is paid to structural equation models and latent measures.

PAD 7705 Applied Quantitative Analysis (3). Application of selected multivariate statistical and quantitative models to the field of public administration. Prerequisite: PAD 6701.

PAD 7707 Advanced Applied Research Methods (4). This course will provide students with an increased understanding of concepts of research methods through applied research projects related to public policy and public administration. Prerequisites: PAD 6701 and URS 6806.

PAD 7808 Economic Development and Urban Management (3). Details the theory and practice of contemporary urban management, with particular emphasis on development of the economic base as a requisite in a competitive federal system.

PAD 7865 Development Administration (3). Policies and institutions fostering decentralization and the rise of civil society in less-developed nations; strategies for change and political, cultural, and economic drivers of progress.

PAD 7913 Comprehensive Examination in Public Administration (1-6). An in-depth review of the Public Administration knowledge base taken prior to sitting for the

comprehensive examinations. May be repeated for credit. Prerequisite: Completion of Program of Studies.

PAD 7960 Comprehensive Examination in Public Administration (3). Intensive preparation for the comprehensive examinations in Public Administration in both the core and areas of specialization. Students may repeat for credit. Prerequisite: Completion of program of studies.

PAD 7980 Ph.D. Dissertation (1-12). This course provides dissertation guidance to doctoral candidates in the Ph.D. program in public administration. Prerequisite: Permission of Major Professor and Doctoral Candidacy.

PAF 7002 Foundations of Policy Analysis (3). Intensive exploration of models, theories, and designs applied to quantitative and qualitative methods of public policy analysis. Instruction and case studies cover a wide range of normative and policy issues. Prerequisites: PAD 6306 and PAD 6053.

PUP 6006 Public Policy Analysis and Evaluation (3). A framework for evaluating public policy-making will be presented. The emphasis will be on criteria and methodologies available for choosing among alternative courses of action. The systems approach, alternative futures, and nth-order consequences of policies will be analyzed.

PUP 6015 Public Policy (3). An intensive analysis of the normative theories of public policy making, with emphasis on the processes by which policy choices are made and implemented by government agencies. The current trends and perspectives of effective policy development (such as participatory democracy, multi-valued choice, etc.) are examined.

URP 5314 Introduction to Urban Planning and Growth Management (3). An historic overview of land use planning and the rise of growth management with emphasis on implementation in complex market and political environments.

URP 5426 Emergency Management and Planning (3). This course focuses on the concepts, processes, and techniques associated with developing and implementing emergency management plans in public, nonprofit, and health organizations.

URS 5645 Strategic Planning in Public and Non-Profit Organizations (3). This course exposes students to the concepts associated with strategic planning of public and nonprofit organizations and provides them with practical experience in their use.

URS 5647 Continuous Quality Improvement (3). This course provides an in-depth exposure to the concepts, principles, and techniques associated with continuous quality improvement (CQI) applied to public, nonprofit, and health organizations.

URS 6806 Applied Research and Evaluation Techniques (3). Theories and concepts of research and evaluation. Specific focus given to action components of the research process: design and formulation, strategies and methodological tools for conducting research. Discussion of the role of research in administrative decisions and in testing ways to implement public policy. A

review of contemporary critiques on research design.
Prerequisite: PAD 6701.

URS 7031 Information and Telecommunications Design and Policy (3). The managerial and public policy implications of innovations in the 'information super highway'; establishment of intra and interorganization capacity for dealing with continued development in the field. Prerequisites: Ph.D. status or permission of the instructor.

URS 7156 Research Practicum (6). An integrative studio course intended to produce a defensible dissertation prospectus and significant empirical research project; may be repeated for credit. Prerequisites: Completion of Ph.D. tool requirement, and URS 7157.

URS 7157 Applied Research Methods (3). Extensive exploration of designs utilized in contemporary social and policy science research with emphasis on triangulated models. Prerequisites: Completion of tools requirement in program of studies or permission of the instructor.

URS 7379 Leadership Development and Decision-Making (3). Leadership as the focal point for organizational development, resource allocation, and 'fit' within the environment; emphasis on effective leadership in the public, health, and nonprofit sectors. Prerequisites: Ph.D. status or permission of the instructor.

URS 7380 Contemporary Management Issues and Problems (3). A proseminar on workplace issues such as AIDS, the Americans with Disability act, and 'the Glass Ceiling'. Special emphasis on diversity and increased utilization of contractual employees. Prerequisites: Ph.D. status or permission of the instructor.

URS 7644 Managing Public Financial Resources (3). An integrative seminar treating taxation, public budgeting, debt management, and evaluation, in the context of a globally competitive economy. Prerequisites: Ph.D. status or permission of the instructor.

URS 7655 Evaluating Organizational and Program Performance (3). Methodology and conceptual frameworks needed to augment organizational effectiveness while enhancing the accountability of public, health, and nonprofit organizations. Prerequisites: Ph.D. or permission of the instructor.

URS 7926 Supervised Readings (3). Extensive reading and review in area of concentration taken in preparation for comprehensive examinations; supervised by Chair of Program Advisory Committee, may be repeated for credit. Corequisite: URS 7156.

Certificate Programs

Graduate Certificate in Addictions

This graduate certificate provides specialized advanced clinical training for social work students and professionals working in the addictions field. It will meet all of the classroom educational requirements laid out by the State of Florida for certification through the Florida Certification Board.

Requirements: (30 credits)

SOW 5105	Human Behavior and the Social Environment I or BSSW equivalent	3
SOW 5125	Human Behavior and the Social Environment II – Psychopathology	3
SOW 5324	Theory and Practice with Groups or BSSW equivalent	3
SOW 5342	Social Work Practice with Individuals & Families or BSSW equivalent	3
SOW 5629	Social Work Practice with Diverse Populations or BSSW equivalent	3
SOW 6351	Clinical Intervention in Couple and Family Social Work Practice	3
SOW 6435	Evaluating Empirically Based Social Work Practice	3
SOW 5710	Current Issues in Addiction Practices	3
SOW 6114C	Assessment & Treatment of Addiction & Related Problems	3
SOW 6711	Prevention of Addiction & Related Problems	3

Graduate Certificate in Human Resource Policy and Management

Human Resource Policy and Management is designed to give graduate students a range of policy-analytic and management skills. It provides training in alternative personnel systems, (civil service, collective bargaining, privatization and service contracting), personnel techniques for productivity improvement, current issues, and ethics and professionalism. This certificate emphasizes the application of behavioral science concepts and techniques to employers in a multicultural context.

Admission

All applicants must hold a baccalaureate degree from an accredited college or university and have an upper division GPA of at least 2.75. Students must be admitted to the certificate program. Admission to a certificate program does not ensure admission to the master's degree in Public Administration (MPA) program. *Note:* Those students who apply for and are admitted to the Master of Public Administration degree program may have certificate courses credited toward an outside specialization in Human Resource Policy and Management. All the credits earned in a Graduate Certificate Program may be used in a master's degree program provided the student is admitted to the master's degree program prior to the completion of no more than 12 Graduate Certificate credits.

Program of Study (15)

The following course is required:

URS 6417	Human Resource Policy and Management	3
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Four of the following nine courses must be taken to complete the certificate.

PAD 5043	Government and Minority Group Relations	3
PAD 5427	Collective Bargaining and the Public Sector	3
PAD 5435	Administrator and the Role of Women	3
PAD 5460	Productivity Improvement	3
PAD 5616	Contracting and Managing Third Party Governments	3
URS 6436	Professionalism and Ethics	3
PAF 6710	IT & E Government	3
PAD 6605	Administrative Law	3
PAD 6156	Applied Organization Theory and Behavior	3

Students must complete their program of study within three years from the date of admission and receive no less than 3.0 GPA.

Graduate Certificate in Justice Administration and Policy Making

The Graduate Certificate in Justice Administration and Policy Making is a professional certificate designed to complement a range of professional activities, academic programs, and degrees in the field of criminal justice. The goals of the program are (1) to stimulate interest in the study of justice administration and policy making at the graduate level, (2) to promote graduate studies with a concentration in criminal justice, and (3) to provide practitioners in the field of criminal justice with a cluster of courses leading to a specialization in criminal justice.

Admission

Students must have a bachelor's degree from an accredited college or university. Students must be admitted to the certificate program. Admission to the graduate certificate program does not ensure admission to the Master's degree in Criminal Justice (MSCJ) program. *NOTE:* Those students who apply for and are admitted to the Master of Science in Criminal Justice degree program may have their Certificate credits with a grade of 'B' or better credited toward the Master of Science in Criminal Justice degree, provided the student is admitted to the master's degree program prior to the completion of no more than 12 Graduate Certificate credits.

Program of Study

A total of 15 successfully completed semester hours is required for the award of the Graduate Certificate in Justice Administration and Policy Making. Students must complete their program of study within three years from the date of their admission and receive no less than a 3.0 GPA in their program of study.

Core Required Courses

CCJ 5288	Legal Issues for Criminal Justice Administrators
CCJ 6058	Theory in the Administration of Justice
CCJ 6456	Administration and Management of Justice Agencies
CCJ 6716	Planning and Program Evaluation

Optional Courses

Select one of the following courses: substitution may be made with the approval of the faculty adviser.

CCJ 5605	Deviance and Social Control
CCJ 5935	Special Topics
CCJ 6477	Seminar in Information Systems

Graduate Certificate in Management in Social Work

This graduate certificate provides specialized management training for social work students and professionals planning to enter or work in managerial positions in the social work field. Courses do not meet elective requirements for MSW clinical program. All certificate students will be required to take the three required courses as well as the two from the approved list.

Requirements: (15 credits)

Required Courses:

SOW 5344	Theory & Practice with Communities & Organizations	3
PAD 6156	Applied Organizational Theory & Behavior	3
SOW 5455	Writing and Managing Grants for Social Service Programs	3
Select two from the following:		
PAD 6205	Public Financial Management	3
PAD 5435	Administration & the Role of Women	3
HSA 6425	Mental Health Administration & Planning	3
URS 5645	Strategic Planning in Public & Non-Profit Organizations	3
PAD 6434	Leadership and Decision Making	3
SOW 6387	Social Services Management Skills	3

Graduate Certificate in Public Management

This graduate certificate program provides students with a thorough understanding of the managerial concepts and techniques of public administration and is designed particularly for those who already have a professional field of specialization.

Admission

All applicants must hold a baccalaureate degree from an accredited college or university and have an upper division GPA of at least 2.75. Students must be admitted to the certificate program. Admission to a certificate program does not ensure admission to the master's degree in Public Administration (MPA) program. *Note:* Those students who apply for and are admitted to the Master of Public Administration degree program may have certificate courses credited toward the MPA core. All the credits earned in a Graduate Certificate Program may be used in a master's degree program provided the student is admitted to the master's degree program prior to the completion of no more than 12 Graduate Certificate credits.

All certificate applicants will be encouraged to acquire proficiency in the use of microcomputers prior to initial registration.

Program of Study (15)

PAD 6053	Political, Social, and Economic Context of PA	3
PAD 6156	Applied Organization Theory and Behavior	3

PAD 6227	Public Finance and & Budgetary Process	3
PAF 6710	IT & E Government	3
PAD 6807	Urban and Municipal Government Administration	3

Students must complete their program of study within three years from the date of admission and receive no less than a 3.0 GPA.

Graduate Certificate in Social Work Practice with the Elderly

This graduate certificate provides specialized advanced clinical training for social work students and professionals working with elderly populations.

Requirements: (15 credits)

Required:

SOW 5105	Human Behavior & the Social Environment I or BSSW equivalent	3
SOW 5125	Human Behavior & the Social Environment II – Psychopathology	3
SOW 5324	Theory & Practice with Groups or BSSW equivalent	3
Select 2 from the following (Advanced Standing Students or those with a BSSW degree must select four from the following):		
SOW 6646	Social Work Practice with the Elderly	3
SOW 6359	Social Work Treatment with Families of the Elderly	3
SOW 5640	Foundations in Gerontology for Health Professions	3
SOW 5641	Understanding the Process of Aging	3
NGR 5250	Physical Change and Healthy Aging	3
HSA 5226	Management of Long Term Care Systems	3

Post-MSW Certificate in Clinical Practice

This certificate program is designed for MSW practitioners who specialized in macro/administrative or generalist practice and with to increase their knowledge and skills in direct services/clinical practice with services to children and families of the elderly. In most cases, MSW practitioners completing this certificate will have the requisite MSW course work for clinical licensure in the state of Florida.

The post-MSW Certificate in Clinical Practice program of study is under revision. Students should anticipate changes in the 6000 level courses.

Program of Study

SOW 5125	Human Behavior and Social Environment II – Psychopathology
SOW 6351	Intervention Strategies with Marriage and the Family
	or
SOW 5643	Understanding the Process of Aging
SOW 6655	Advanced Intervention Strategies with Children and Adolescents
	or
SOW 6646	Social Work Practice with the Elderly
	Social Work Elective (clinical)
SOW 6535	Field Practicum II
SOW 5643	Integrative Field Seminar II

College of Social Work, Justice, and Public Affairs

Dean Ray

Thomlison

Associate Dean Lourdes Rassi

Directors:

School of Social Work Paul H. Stuart

School of Criminal Justice Lisa Stolzenberg

School of Public Administration Meredith Newman

Faculty

Abeloff, Jennifer, M.S. (Florida State University), Visiting Instructor, Social Work

Beaulaurier, Richard, Ph.D. (University of Southern California), Associate Professor, Social Work

Becker, Jennifer, Ph.D. (Florida International University), Visiting Instructor, Social Work

Berkman, Ronald M., Ph.D. (Princeton University), Professor, Public Administration and Provost

Byrnes, Patrick J., M.P.A. (Florida International University), Instructor, Criminal Justice

Cohen, David, Ph.D. (University of California-Berkeley), Professor, Social Work

Cohn, Ellen, Ph.D. (University of Cambridge), Associate Professor, Criminal Justice

Craig, Shelley, Ph.D. (Florida International University), Visiting Instructor, Social Work

D'Alessio, Stewart, Ph.D. (Florida State University), Associate Professor, Criminal Justice

Dalehite, Esteban, M.P.A. (University of Texas, Austin), Assistant Professor, Public Administration

De La Rosa, Mario, Ph.D. (Ohio State University), Associate Professor, Social Work

Dumaine, Marian, Ph.D. (Florida International University), Clinical Associate Professor, Social Work and Coordinator of Field Education, Social Work

Flexon, Jamie L., Ph.D. (State University of New York at Albany), Assistant Professor, Criminal Justice

Frank, Howard, Ph.D. (Florida State University), Associate Professor, Public Administration

Ganapati, Emel, Ph.D. (University of Southern California), Assistant Professor, Public Administration

Ganapati, Sukumar, Ph.D. (University of Southern California), Assistant Professor, Public Administration

Garcia-Zamor, Jean-Claude, Ph.D. (New York University), Professor, Public Administration

Gil, Andres, Ph.D. (University of Miami), Professor, Social Work, Associate Vice President (OSRA)

Guerette, Rob, Ph.D. (University of North Carolina, Charlotte), Assistant Professor, College of Social Work, Justice and Public Affairs, Criminal Justice

Hayden, Mary Helen, Ed.D., M.S.W., ACSW, L.C.S.W. (Florida State University), Assistant Professor and Associate Director Academic Programs, Social Work

Jones, Rosa L., D.S.W., ACSW, L.C.S.W. (Howard University), Associate Professor, Social Work and Vice President, Student Affairs and Undergraduate Education

Kakar, Suman, Ph.D. (University of Florida), Associate Professor, Criminal Justice

Macgowan, Mark J., Ph.D., L.C.S.W. (Barry University), Associate Professor, Social Work

Mankita, Susan, M.S.W. (Barry University), Visiting Instructor, Social Work

Martinez, Ramiro, Ph.D. (Ohio State University), Professor, Criminal Justice

Murray, Edward P., Ph.D. (University of Massachusetts, Amherst), Assistant Professor, Public Administration

Orta, Addis, M.S.W. (Florida International University), Visiting Instructor, Social Work

Patterson, Valerie L., Ph.D. (Florida International University), Assistant Professor, Public Administration

Potocky, Miriam, Ph.D. (University of Kansas), Associate Professor, Social Work

Rassi, Lourdes, Ph.D. (University of Miami), Associate Dean, College of Social Work, Justice, and Public Affairs, Public Administration

Revell, Keith D., Ph.D. (University of Virginia), Associate Professor, Public Administration

Rice, Christopher, Ph.D. (Washington University), Associate Professor, Social Work

Rosenbaum, Allan, Ph.D. (University of Chicago), Professor, Public Administration

Salas, Luis P., J.D. (Wake Forest University), Professor, Criminal Justice, and Director, Center of the Administration of Justice

Stolzenberg, Lisa, Ph.D. (Florida State University), Associate Professor and Director, Criminal Justice

Terry, W. Clinton, Ph.D. (University of California-Santa Barbara), Associate Professor, Criminal Justice

Thomlison, Barbara, Ph.D. (University of Toronto), Professor, Social Work Director, Institute for Children and Families At Risk

Thomlison, Ray, Ph.D. (University of Toronto), Professor, Social Work and Dean, College of Social Work, Justice, and Public Affairs

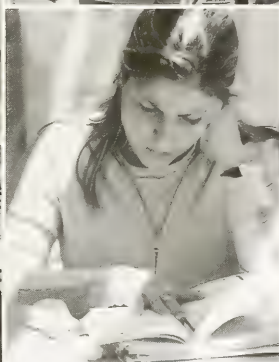
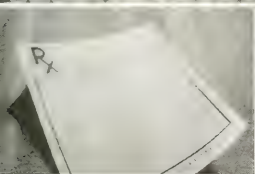
Van Den Bergh, Nan, Ph.D. (University of Pittsburgh), Associate Professor, Social Work

Wagner, Eric F., Ph.D. (University of Pittsburgh), Professor, Social Work and Director, Teen Intervention Project

Wong, Stephen, Ph.D. (Western Michigan University), Associate Professor, Social Work



FLORIDA INTERNATIONAL UNIVERSITY



**ROBERT STEMPEL
SCHOOL OF
PUBLIC HEALTH**

Robert R. Stempel School of Public Health

Michele Cicazzo, *Interim Dean and Associate Professor*

Nasar Ahmed, *Chair, Epidemiology and Biostatistics*

Gloria Deckard, *Chair, Health Policy and Management*

Julia Gonzalez-Pampin, *Coordinator of Student and Alumni Affairs*

Fatma Huffman, *Chair, Dietetics and Nutrition*

H. Virginia McCoy, *Associate Dean of Academic Affairs*

and Outreach/Public Health Practice and Chair,

Health Promotion and Disease Prevention

Rebecca Diaz, *Coordinator of Student and Alumni Affairs*

Deodatta Roy, *Chair, Environmental and Occupational Health*

Carrie Sanchez, *Assistant Director of Student and Alumni Affairs*

Saul Szlam, *Assistant Dean and Director of Student and Alumni Affairs*

The Robert R. Stempel School of Public Health includes five departments: Dietetics and Nutrition, Environmental and Occupational Health, Epidemiology and Biostatistics, Health Policy and Management, and Health Promotion and Disease Prevention. Departments offer programs of study leading to Master of Public Health degree (with specializations in biostatistics, environmental and occupational health, epidemiology, health promotion and disease prevention, health policy and management, and community nutrition); a Ph.D. in Public Health (with specializations in community nutrition, environmental and occupational health, epidemiology, and health promotion and disease prevention); a baccalaureate, a Master's, and a Ph.D. degree in Dietetics and Nutrition; baccalaureate and a Master's degree in Health Services Administration. The Department of Dietetics and Nutrition also offers two accredited pre-professional practice programs: a coordinated program and a dietetics internship. Degrees are accredited by their respective professional accrediting agencies, including the Council on Education for Public Health and Commission on Accreditation of Health Care Management Education. Each degree program is committed to preparing students for the pursuit of excellence in professional and scholarly endeavors in an era of globalization, scientific and technological advances, and demographic changes. The health and well-being of communities as affected by multiple determinants is reflected in our interdisciplinary curriculum. The programs emphasize the involvement of practitioners, academic researchers, and the community to improve and promote public health.

Office of Student and Alumni Affairs

The Office of Student and Alumni Affairs provides expertise and direction in many university administrative functions. The staff will assist students and faculty, while following the policies and procedures of the university. The office works with department chairs to coordinate admissions and advising services, and provides students with information on scholarships, assistantships, stipends, curriculum, requirement changes, internships, and graduation application deadlines. The office serves as a liaison between the Robert Stempel School of Public

Health and university-wide student support services. The office coordinates alumni services and communication.

The SSPH has dynamic professional staff dedicated to promoting the school and supporting our students while they pursue their academic goals.

For additional and updated information about SSPH requirements, programs, and services, please visit our website at www.sspsh.fiu.edu.

Master of Public Health

The Master of Public Health (MPH) degree is accredited by the Council on Education for Public Health. The MPH program is designed to provide fundamental skills in core areas of public health and to serve those seeking a broader base of knowledge to improve environmental and personal health services for the community. The MPH generalist program is offered fully online.

The mission of the Robert Stempel School of Public Health at Florida International University is:

- to educate and train future leaders, researchers, and health professionals from diverse backgrounds;
- to conduct innovative research and to translate that research into policy, program, and practice, and
- to promote healthy lives for the diverse communities of South Florida, especially, the underserved, and the peoples of the Caribbean and Latin America.

Admission Application

Students seeking admission to the graduate programs in the Robert Stempel School of Public Health must formally apply to the University for acceptance at <http://gradschool.fiu.edu>. For additional information contact the:

Robert Stempel School of Public Health

Office of Student and Alumni Affairs

Email: ph@fiu.edu

Tel: (305) 348-7777

Fax: (305) 348-4901

Website: www.sspsh.fiu.edu

Admission Requirements

Applicants must meet the University's general graduate admission requirements:

1. A Bachelor's degree or equivalent from an accredited college or university or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level.

2. A minimum 3.0 GPA (on the last 60 undergraduate hours). In addition, applicants are required to 1) submit three letters of recommendation from persons in the field of public health and the academic major at the institution most recently attended; 2) submit a written personal statement as described in the application packet provided by the Department of Public Health; 3) provide a current curriculum vitae/resume.

3. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

Students with diverse backgrounds are encouraged to apply.

Computer Requirements

Entering students must demonstrate basic computer literacy, either through course work or by demonstration to the advisor. Students are expected to show that they can load and run software programs, and have reasonable proficiency in word processing. Two core courses, PHC 6715 Survey Research in Public Health and PHC 6065 Public Health Statistics, require use of SPSS. This requirement will assure that students are prepared for these and other courses which require additional computer skills needed in public health practice.

Masters Culmination

All MPH students must complete either a field-training experience or a research option as a core requirement.

Field Experience Option

This option is a requirement for all students with less than three years of work experience in a public health. Field experience gives the student the opportunity to gain practical experience under preceptor-guided supervision in a public health agency. Students should consult the Internship Coordinator for further information.

Research Options

These options are recommended for students entering the program with three or more years of experience in a public health-related program.

Master's Research Project

The research project affords the opportunity to conduct research on a specific public health problem or topic in either a community or institutional setting. MPH students who select the research project must choose a faculty member to direct their research. The advisor and the student may identify other resource persons to serve in an advisory capacity for the research project.

Master's Thesis

The thesis option provides students the opportunity to conduct original research on a public health problem or topic and to report this in a scholarly manuscript. Students who select this option must choose a major professor to act as the chair of their thesis committee and two additional members. Before beginning work on a thesis, student must present a proposal to their committee for approval. The committee will direct and supervise the work carried out by the student.

Degree Requirements

Students must complete at least 45 semester hours of approved course work with a minimum of a 'B' average. Core Public Health courses must be completed prior to taking specialization content or elective courses and must be passed with a grade of 'B' or higher. All work applicable to the degree must be completed within six years of first enrollment in the master's program.

Online Master of Public Health Option

Students may be admitted to the Master of Public Health Online program. All admissions and graduation requirements are the same as the traditional programs. Each Online class is the equivalent of an on-campus section of the same course, in terms of objectives, content,

rigor, and transferability. Students must meet stated prerequisites or assessment scores, where applicable. The main difference is the degree of flexibility that an Online format provides the student.

Doctor of Philosophy in Public Health

The Doctor of Philosophy (Ph.D.) in Public Health is designed to prepare graduates to engage in research for public health practice and policy and for leadership positions in national, state, and local public health and other health agencies. The degree will provide a foundation in current public health research and practice with opportunity for specialization in one of four areas: Community Nutrition, Epidemiology, Environmental and Occupational Health, or Health Promotion and Disease Prevention. The curriculum of the doctoral program is built around the core competencies necessary for public health. Students will be expected to demonstrate significant research capacity by completing 60 credits beyond the Master's degree and through the writing of an original dissertation.

Doctoral Admissions

A student may enroll for dissertation credits after completing all coursework, passing the candidacy examination, and being advanced to candidacy. Dissertation credits cannot be taken before advancement to candidacy.

The candidacy examination will be prepared and graded by a committee consisting of a minimum of three faculty members. Admission to candidacy requires that a majority of the committee members agree that the student passed the examination. A candidacy examination may not be passed conditionally. A "Pass" on the examination cannot be made contingent upon other factors such as the completion of additional coursework or the preparation of extra research projects. Students will be allowed only two attempts to pass the candidacy examination.

After a doctoral student is admitted to candidacy, continuous registration for at least 3 dissertation credit hours each semester (including the summer term) is required until the dissertation requirement is fulfilled.

Doctoral Requirements

A student may enroll for dissertation credits after completing all coursework, passing the candidacy examination, and being advanced to candidacy. Dissertation credits cannot be taken before advancement to candidacy.

The candidacy examination will be prepared and graded by a committee consisting of a minimum of three faculty members. Admission to candidacy requires that a majority of the committee members agree that the student passed the examination. A candidacy examination may not be passed conditionally. A "Pass" on the examination cannot be made contingent upon other factors such as the completion of additional coursework or the preparation of extra research projects. Students will be allowed only two attempts to pass the candidacy examination.

After a doctoral student is admitted to candidacy, continuous registration for at least 3 dissertation credit hours each semester (including the summer term) is required until the dissertation requirement is fulfilled.

Required Courses

The program requires a minimum of 75 credit hours beyond the baccalaureate which includes a minimum of 24 hours of dissertation credits. There are three components to the SSPH Ph.D. curriculum. The first is a core curriculum shared across all specializations (12 credit hours). The second component is specific to the specializations (27 credit hours) and secondary field courses (12 credit hours). The third component consists of the dissertation, including 24 dissertation credit hours.

Shared Core Courses

PHC 6601	Emerging Issues in Public Health	3
PHC 6718	Quantitative Research Analysis in Health and Urban Affairs II (or other approved Quantitative Methods course)	3
PHC 7981	Research Concepts and Proposal Development	3
PHC 7705	Methods in Evidence Based Public Health	3

Specializations: A minimum of 9 credit hours in Methods, 18 credit hours in Content Courses, and 12 credit hours in a Secondary Field is required.

Methods Courses

Specific methods courses for each concentration 9

Content Courses

Courses to be identified by field faculty in specific field courses for each concentration 18

Secondary Field Courses

Secondary field courses selected from approved graduate school courses in consultation with academic advisor. 12

Dissertation Requirements

PHC 7980	Dissertation	24
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Master of Health Services

Administration

Admission Requirements

Students seeking admission into the graduate program must meet the following minimum requirements:

1. Satisfactorily meet the general University requirements for admission to graduate programs.

2. Hold a Bachelor's degree from a regionally accredited university or college.

3. Show promise of success in graduate studies as determined by the faculty. Admission to the program will be based upon a combination of the Graduate Record Examination (GRE) and the upper-division (last 60 hours) grade point average. Students who have taken the Graduate Management Admissions Test (GMAT) may submit that score in place of the GRE. Each applicant must have a composite score on the verbal and quantitative sections of the GRE of at least 1000 (for the GMAT at least 500) and a GPA for the last 60 hours of 3.0 or higher on a 4.0 scale. All applicants are required to submit a GRE or GMAT score.

4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.

5. Entering students are expected to possess basic computer skills including word processing, Internet, and spreadsheet applications. Students who do not have these skills or prerequisites may complete these requirements in their first semester of study.

Meeting the minimum requirements does not guarantee admission to the program. Admission will be based on additional factors including compatibility of the applicant's career goals with the programs objectives, relevance of work experience, etc. The Program Admissions Committee may require a personal interview as a part of the application process.

All applications for admissions should be received by the Program no later than two months preceding the semester in which the student wishes to commence the program. A maximum of 12 semester hours taken as an affiliated student can be used toward the degree. Affiliated status does not guarantee admission to the degree program.

Admission Standards

A student wishing to enroll in the graduate program must complete the following:

1. Complete the online graduate admissions application available at <http://gradschool.fiu.edu>.

2. Have official transcripts of all previously earned college or university credits sent to the University Admissions Office.

3. Submit scores on the Graduate Record Examination or GMAT (1000 on the GRE or 500 on the GMAT and 3.0 in the last 60 hours of undergraduate degree).

Students who do not meet the above criteria may submit an appeal to the HPM faculty for review. Managerial experience in a health care setting will be given consideration.

Advanced Standing

Effective for students entering the program 8/15/06 or afterward, Advanced Standing provides students with an undergraduate degree in Health Services Administration to complete the Master's of Health Services Administration degree with 42 to 45 credit hours. The maximum allowable waiver of courses for Advanced Standing is six credit hours.

Courses for which the waiver may be granted include:

HSA 5125	Introduction to Health Services	3
HSA 6426	Legal Aspects of Health Care	3

Students must apply for Advanced Standing upon admission to the Program or during their first semester in the Program. To apply for Advanced Standing, the student must complete an Advanced Standing Petition Form and document equivalent course content with a grade of "B" or better. Waiver of the Legal Aspects course requires that a similar course had been taken within two years of the application. The HPM Faculty must approve the application of Advanced Standing.

Degree Requirements

To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for the Master of Health Services Administration Program.

2. Complete a minimum of 46 semester hours of graduate level course work in the approved program.

3. Earn a minimum overall GPA of 3.0 in all work completed at the University as a graduate student.

4. No courses in which a grade below 'C' is earned may be counted toward the Master's degree.

5. A maximum of six semester hour-credits of graduate course work not included in another degree that meet university requirements, may be transferred from an accredited university by petition at the time of admission.

All students completing the Master's program are subject to graduate student regulations and degree requirements governed by the policies of the College of Health and Urban Affairs and the University.

Courses are sequenced to enhance the development of competencies as students progress through the curriculum. Students need to pay attention to course prerequisites and adhere to course sequencing.

Master of Science in Dietetics and Nutrition

Admission Requirements

Minimum entrance requirements under current University Graduate School must be met. For the M.S. this includes a 'B' (3.0 on a 4.0 scale) average in all upper division work. An applicant who feels the earned GPA is not indicative of his or her ability to be successful in a graduate program may submit scores for the Graduate Record Examination (GRE) which will be taken into consideration by the admission committee in its evaluation of the application.

Students who are candidates for the Master of Science degree in Dietetics and Nutrition must complete a minimum of 37 semester hours of graduate study including at least 30 hours at this University. All course work must be recent enough to be relevant to the contemporary field of nutrition.

Graduate students wishing to become a Registered Dietitian can be considered for admission into the FIU Coordinated Program in Dietetics. The Coordinated Program (CP) is currently granted continuing accreditation status by the Commission on Accreditation of Dietetics Education of The American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, Illinois 60606, (312) 899-0040, ext. 5400.

The program combines didactic requirements with supervised practicum experience. Graduates from the CP are eligible to sit for the National Registration Examination for Dietitians.

Graduate students having successfully completed a Didactic Program in Dietetics will be evaluated for course equivalency prior to admission into the CP. Upon determination that they have the necessary coursework equivalents (and applied labs), students must pass the DIE 4963 Comprehensive Dietetic Examination before placement in the supervised practice component of the CP.

The student must make formal application to the Coordinated Program by February 1 before Summer admission. This special application form can be obtained from the department. Criteria for admission include grades in prerequisite course work, work experience, and letter of application. Students accepted into the CP will undergo a background screening and drug testing. Twelve graduate credits of supervised practice experiences (DIE 5946 & 5947) must be completed by graduate students.

Costs of the program to students in addition to tuition and fees (including a \$50/credit practicum fee) include: providing transportation to practicum sites, lab coats and

professional attire, annual laboratory tests at the student health services clinic.

Students must meet all graduation requirements for the M.S. in Dietetics and Nutrition or M.P.H. in Community Nutrition degree in order to receive the verification statement of Coordinated Program completion.

Doctor of Philosophy in Dietetics and Nutrition

Minimum entrance requirements under current University Graduate School must be met. For the Ph.D., the University Graduate School GRE requirement is 1120 (verbal plus quantitative). Additional requirements include submission of a 2-3 page statement of purpose, objectives and goals for Ph.D. studies, a resume and 3 letters of recommendation. Previous completion of an M.S. degree is not required for admission. Qualified students will be accepted into the Ph.D. program on the basis of their compatibility with the research interests of departmental faculty. English proficiency is required for teaching assistantships. Students for whom English is not the primary language and want to be considered for a teaching assistantship must take the TSE (Test for Spoken English); a minimum score of 26 on the speaking portion of the iBT TOEFL or 7 in the speaking portion of the IELTS is needed. Alternatively they may achieve a level 5 score on a proficiency test administered by the English Language Institute, but are free to acquire proficiency in any way they choose. All teaching assistants must complete the FIU Academy of the Art of Teaching workshop and receive the Teaching Assistant Certificate. Application procedures for admission are detailed in the Graduate Admission section of this catalog.

Ph.D. students must complete a minimum of 55 hours after M.S. degree or 75 hours after the B.S. degree.

See Department pages for required coursework.

Certificate Programs

The SSPH offers a variety of graduate certificates which may be earned in conjunction with an MPH or other graduate degree. The certificates provide graduate level training and instruction in Community Nutrition, Environmental Health, Epidemiology, Health Promotion, Health Services Administration, and Public Health Foundations. Each certificate requires 18 credit hours of approved graduate level course work. Applicants must hold a bachelor's degree or equivalent from an accredited college or university. Program requirements for specific certificates can be found beginning on page 505.

Dietetics and Nutrition

Fatma Huffman, *Professor and Chair*

Marianna Baum, *Professor*

Adriana Campa, *Assistant Professor*

Michele Ciccazzo, *Associate Professor and Interim Dean*

Katharine R. Curry, *Professor Emeritus*

Victoria Hammer Castellanos, *Associate Professor and Director PhD Program*

Zisca Dixon, *Associate Professor*

Penelope S. Easton, *Professor Emeritus*

Evelyn B. Enrione, *Associate Professor and Director MS Program*

Valerie George, *Research Associate Professor*

Dona Greenwood, *Clinical Assistant Professor, Director Coordinated Program and Director, Didactic Program*

Marcia Magnus, *Associate Professor*

Liza Merly, *Clinical Instructor*

Tania Rivera, *Clinical Assistant Professor*

The Program in Dietetics and Nutrition offers graduate studies leading to a Master of Science or a Doctor of Philosophy in Dietetics and Nutrition. The M.S. program is designed to meet the needs of professional practitioners as well as students with undergraduate degrees in related fields. The Ph.D. program prepares graduates to assume leadership roles in research, academia, government agencies, private industry and community-based organizations. Our doctoral program allows students to study and work side-by-side with nationally known educators, researchers, and practitioners who serve as mentors. Both graduate programs afford students the option of completing the requirements for eligibility to take the national registration exam to become a Registered Dietitian.

Master of Science in Dietetics and Nutrition

Each student's program will be planned to support his/her career goals through consultation with an assigned faculty advisor. Retention and graduation in the Master's program requires maintenance of a 3.0 GPA and student may not receive more than 2 grades of "C+" or less.

Course Requirements

Required Core (26 credits)

Master Thesis Option

The thesis option provides the student the opportunity to conduct original research and to report this in a scholarly manuscript. This option is especially well suited to a student who plans on pursuing a PhD degree. Students who select this option must choose a major professor to act as the chair of their thesis committee and two additional committee members. Before beginning work on a thesis, a student must present a proposal to their committee for approval. The committee will direct and supervise the work carried out by the student. Student must take a minimum of 6 credits of DIE 6971 Thesis in Dietetics & Nutrition.

Research (14 credits)

PHC 6704/DIE 6568	Research Methods	3
DIE 6937	Graduate Seminar in Dietetics (<i>two semesters</i>)	1
DIE 6971	Thesis in Dietetics and Nutrition	6

STA 6166	Statistical Methods in Research	3
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Masters Project Option

Master's Project is a non-thesis option. It affords the opportunity to conduct applied research, program planning, or program evaluation on a specific dietetics and nutrition problem, topic, or existing program in either a community or institutional setting. Students who select the Master's Project must choose a major professor to direct their project. The advisor and the student may identify other resource persons to serve in an advisory capacity for the project. Before beginning the project, student must present a project concept proposal to the major professor. This project will be approved by the Graduate Program Director. Student will write a project report and present the study at an announced open forum similar to the thesis defense. This report will not be on file in the FIU library. Student must take 3 credits DIE 6907 Individual Study in Dietetics and an additional 3 credits in coursework in consultation with major professor.

Research (8 credits)

PHC 6704/DIE 6568	Research Methods	3
DIE 6937	Graduate Seminar in Dietetics (<i>two semesters</i>)	1
STA 6166	Statistical Methods in Research	3

Coursework (6 credits)

DIE 6907	Individual Study	3
	Additional course (approved by major advisor)	3

Nutrition Core (9 credits)

Students must take at least three out of five courses. One course must be in macronutrients, one in micronutrients.

HUN 5245	Nutrition and Biochemistry	3
HUN 6307	Carbohydrates and Lipids	3
HUN 6327	Proteins	3
HUN 6335	Functions of Vitamins	3
HUN 6355	Minerals in Human Nutrition	3

Public Health Core (3 credits)

PHC 6500	Foundation of Public Health Practice	3
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Recommended Electives¹ (11 credits)

ANT 6469	Graduate Medical Anthropology	3
DIE 6368	Advanced Techniques in Dietetic Practice	2
DIE 6368L	Advanced Techniques in Dietetic Practice Lab	1
DIE 6929	Specialized Short Course in Dietetics and Nutrition	1
FOS 6236	Food Toxicology and Food Safety	3
HUN 5123	Ethnic Influences on Nutrition and Food Habits	3
HUN 5621	Food, Nutrition and Communication	3
HUN 6248	Sports Nutrition	3
HUN 6254	Drug and Nutrient Interaction	3
HUN 6255	Nutrition and Wellness	3
HUN 6257	Physio/Psychology of Food Intake	3
HUN 6266	Nutritional Assessment	3
HUN 6295	Contemporary Issues in Food and Nutrition	3
HUN 6435	Nutrition and Aging	3
HUN 6522	Public Health Nutrition	3

¹Courses that are not listed as recommended electives may be taken as approved by advisor/Program Director.

MPH Specialization Areas

The School offers a Master's degree in Public Health with a specialization in Community Nutrition.

MPH in Community Nutrition courses prepare students to use scientific methods of study, interpret, and apply findings to improve community nutrition problems. This program of study is focused on the ability to develop, implement, manage, and assess nutrition programs for local, state and Federal public health agencies. See also Graduate Certificate in Nutrition.

General Core Courses: (15 credits)

PHC 6065	Health Statistics	3
PHC 6000	Introduction to Public Health	
	Epidemiology	3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3
PHC 6102	Public Health Policy and Management	3

Specialization in Community Nutrition (15 credits)

HUN 6522	Public Health Nutrition	3
HUN 5611	Nutrition Education in the Community	3
PHC 6704	Research Methods	3
HUN 6295	Contemporary Issues in Food and Nutrition	3
One of the following: (3 credits)		
HUN 6255	Nutrition in Wellness	3
HUN 5123	Ethnic Influences on Nutrition and Food Habits	3
HUN 6435	Nutrition and Aging	3
HUN 5195	International Nutrition	3

Doctor of Philosophy in Dietetics and Nutrition

Ph.D. students must complete a minimum of 55 hours after M.S. degree or a minimum of 75 hours beyond the B.S. degree. The stated minimum does not include remedial coursework. Coursework will be planned with the advisor and the dissertation committee to support the student's research interests and career goals. A 3.0 GPA must be maintained, and all courses needed for graduation must be completed with a grade of "C+" or higher.

Required Courses**Research & Methods Core (15 credits)**

(Prerequisites: PHC 6704 or equivalent; PHC 6709 or equivalent)

PHC 6718	Quantitative Analysis in Health and Urban Affairs II	3
PHC 6710	Qualitative Research Methods in Public Health	3
PHC 6703	Epidemiological Research Methods III or	3
Approved Experimental or Clinical Research Methods Course		3
HUN 6266	Nutritional Assessment	3
PHC 7981	Research Concepts and Proposal Development	3

Seminar (minimum 3 credits)

DIE 6937	Graduate Seminar in Dietetics & Nutrition (course may be repeated 3 times, minimum)	1
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Nutrition Science (0-9 credits)¹

HUN 6285	Nutrition & Metabolism I	3
HUN 6286	Nutrition & Metabolism II	3
HUN 6287	Nutrition & Metabolism III	3

¹Do not need if equivalent previously taken at the graduate level.

Dietetics (minimum 13 credits)²

HUN 7408	Nutrition Across the Lifespan	3
HUN 7523	Community Nutrition	3
HUN 7524	Nutrition Science and Implications for Community Health	3

²A program of study will be developed with the assistance of a major professor and dissertation committee. More than 13 credits may be required for the student to achieve competency in the research methods and content related to their dissertation research. Graduate courses outside of Dietetics & Nutrition may be taken as approved by dissertation committee.

Dissertation (minimum 24 credits)

DIE 7980	Dissertation	12-24
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Doctor of Philosophy in Public Health Specialization in Community Nutrition

The Doctor of Philosophy (Ph.D.) in Public Health is available with a specialization in Community Nutrition. Students will be expected to demonstrate significant research capacity by completing 60 credits beyond the Master's degree and through the writing of an original dissertation.

Required Courses

The program requires a minimum of 75 credit hours beyond the baccalaureate which includes a minimum of 24 hours of dissertation credits. There are three components to the SSPH Ph.D. curriculum. The first is a core curriculum shared across all tracks (12 credit hours). The second component is specific to the tracks (27 credit hours) and secondary field courses (12 credit hours). The third component consists of the dissertation, including 24 dissertation credit hours.

Shared Core Courses (12)

PHC 6601	Emerging Issues in Public Health	3
PHC 6718	Quantitative Research Analysis in Health and Urban Affairs II (or other approved Quantitative Methods course)	3
PHC 7981	Research Concepts and Proposal Development	3
PHC 7705	Methods in Evidence Based Public Health	3

Courses for Community Nutrition Track (27)

A minimum of 9 hours in Method and 18 hours in Content Courses is required (with 9 required credits at the 7000 level).

Method Courses

Major advisor and the program committee for the student will identify method courses.

DIE 6937	Graduate Seminar in Dietetics and Nutrition (1 credit, take 3 times)	3
HUN 6266	Nutritional Assessment	3
PHC 6704	Research Methods in Health and Social Services	3

(or other approved methods course)

Content Courses

HUN 7523	Community Nutrition	3
HUN 7408	Nutrition Across the Life Span	3
HUN 7524	Nutrition Science and Implications for Community Health	3

Take at least 6 credits of the following:

FOS 6236	Food Toxicology and Food Safety	3
HUN 6255	Nutrition in Wellness Programs	3
HUN 6257	Physio/Psychology of Food Intake	3
HUN 6435	Contemporary Issues in Food and Nutrition (or other approved course)	3

Secondary Field Courses (12)

Secondary field courses selected from approved graduate school courses in consultation with academic advisor.

Dissertation Requirements (24)

DIE 7980	Dissertation	24
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For additional and updated information about SSPH requirements, programs, and services, please visit our website at www.ssph.fiu.edu

**FOR A COMPLETE LISTING OF COURSE
DESCRIPTIONS AND PREREQUISITES GO TO PAGES
508-516**

Environmental and Occupational Health

Deodutta Roy, *Professor and Chair*
Janvier Gasana, *Associate Professor*
Quentin Felty, *Assistant Professor*
Jai Parkash, *Assistant Professor*
Berrin Serdar, *Assistant Professor*

The Department offers a Graduate Certificate, a Master's degree in Public Health with a specialization in Environmental and Occupational Health and a Ph.D. in Public Health with a specialization in Environmental and Occupational Health.

MPH in Environmental and Occupational Health courses prepare professionals to utilize technical data, decision-making theory, managerial methods, socio-legal issues, and risk assessment in the development and implementation of public policy, environmental standards, and environmental protection programs. See also Graduate Certificate in Environmental Health and Graduate Certificate in Conflict Resolution.

General Core Courses: (15 credits)

PHC 6000	Introduction to Public Health	
	Epidemiology	3
PHC 6065	Health Statistics	3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3
HSA 5125	Introduction to Health Policy and Management	3

Specialization in Environmental and Occupational Health (15 credits)

PHC 6310	Toxicology of Environmental Hazards	3
PHC 6311	Environmental Health Risk Assessment	3
PHC 6355	Occupational Health and Safety	3
PHC 6914L	Current Topics in Environmental and Occupational Health Research	3
PHC 6921	Environmental and Occupational Health Seminar	3

Elective Courses: (9 credits)

PHC 6001	Environmental and Occupational Epidemiology	3
PHC 6307	Exposure Assessment in Environmental and Occupational Epidemiology	3
PHC 6356	Fundamentals of Industrial Hygiene	3
PHC 6422	Legal and Regulatory Aspects of Environmental Health	3
PHC 6520	Public Health Aspects of Food borne Disease	3
PHC 6538	Genetic Issues in Public Health	3
PHC 6907	Independent Study in Public Health	1-3

**or any other advisor approved elective

Capstone Courses (6 credits)

PHC 6945	Supervised Field Experience in Public Health	1-6
	or	
PHC 6977	Masters Research Project in Public Health	1-6
PHC 6xxx	Capstone Course in Public Health	3
	or	
PHC 6xxx	Master's Thesis	6

Doctor of Philosophy in Public Health Specialization in Environmental and Occupational Health

The Doctor of Philosophy (Ph.D.) in Public Health is available with a specialization in Environmental and Occupational Health. Students will be expected to demonstrate significant research capacity by completing 60 credits beyond the Master's degree and through the writing of an original dissertation.

Required Courses

The program requires a minimum of 75 credit hours beyond the baccalaureate which includes a minimum of 24 credit hours of dissertation credits. There are three components to the Ph.D. curriculum. The first is a core curriculum shared across all specializations (12 credit hours). The second component is specific to the specialization (27 credit hours) and secondary field courses (12 credit hours). The third component consists of the dissertation, including 24 dissertation credit hours.

Shared Core Courses

PHC 6601	Emerging Issues in Public Health	3
PHC 6718	Quantitative Research Analysis in Health and Urban Affairs II (or other approved Quantitative Methods course)	3
PHC 7981	Research Concepts and Proposal Development	3
PHC 7705	Methods in Evidence Based Public Health	3

Courses for Environmental and Occupational Health Specialization (minimum 18 credits with 9 at the 7000 level) A minimum of 9 hours in Method and 18 hours in Content Courses is required.

Method Courses

PHC 6914L	Current Topics in Environmental and Occupational Health Laboratory Research I	3
PHC 6xxx	Current Topics in Environmental and Occupational Health Laboratory Research II	3
PHC 6xxx	Current Topics in Environmental and Occupational Health Laboratory Research III	3

Content Courses

PHC 6001	Environmental and Occupational Epidemiology	3
PHC 6310	Toxicology of Environmental and Occupational Diseases	3
PHC 6311	Risk Assessment of Environmental and Occupational Hazards	3
PHC 6355	Occupational Health and Safety	3
PHC 6921	Environmental and Occupational Health Seminar	3
PHC 6xxx	Current Topics in Environmental and Occupational Health	3
PHC 6538	Genomics in Environmental Public Health	3
PHC 6907	Independent Study in Environmental Public Health	3
PHC 6920	Special Topics in Environmental and Occupational Health	3
PHC 6315	Introduction to Environmental Health	3

PHC 6307	Exposure Assessment in Environmental and Occupational Epidemiology	3
PHC 6520	Public Health Aspects of Food Borne Diseases	3
PHC 6422	Legal and Regulatory Aspects of Environmental Health	3
PHC 6356	Fundamentals of Industrial Hygiene	3
PHC 7372	Signal Transduction in Environmental Health	3
PHC 7300	Biological Basis of Environmental Public Health	3
FOS 6236	Food Toxicology and Food Safety	3

Secondary Field Courses

At least 12 credit hours of approved secondary field courses. Secondary field courses selected from approved graduate school courses in consultation with academic advisor.

Dissertation Requirements

PHC 7980	Dissertation	24
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For additional and updated information about SSPH requirements, programs, and services, please visit our website at www.ssphe.fiu.edu.

FOR A COMPLETE LISTING OF COURSE DESCRIPTIONS AND PREREQUISITES GO TO PAGES 508-516

Epidemiology and Biostatistics

Naser U. Ahmed, *Chair and Associate Professor*

WayWay M. Hlaing, *Associate Professor*

Sunny Kim, *Assistant Professor*

Theophile Niyonsenga, *Associate Professor*

Vukosava Pekovic, *Assistant Professor*

Mary Jo Trepka, *Associate Professor*

The Department offers a Graduate Certificate in Epidemiology, a Master's degree in Public Health with specializations in Biostatistics and Epidemiology; and a Ph.D. in Public Health with a specialization in Epidemiology.

MPH in Biostatistics courses incorporate concepts such as hypothesis testing for univariate and sometimes multivariate data sets. Quantitative methods from fields such as: statistics, operations research, economics and mathematics are included in course material. The discipline is designed to interpret information and is connected to fields in medical informatics, and bioinformatics.

MPH in Epidemiology courses prepare students to investigate the distribution of diseases, disease outbreaks, epidemics, and health conditions in the population, the factors determining the distribution. (See also Graduate Certificate in Epidemiology).

General Core Courses: (15 credits)

PHC 6000	Introduction to Public Health Epidemiology	3
PHC 6065	Health Statistics	3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3
HSA 5125	Introduction to Health Policy and Management	3

Specialization in Epidemiology: (15 credits)

PHC 6055	Data Management and Applied Epidemiologic Analysis	3
PHC 6013	Epidemiologic Methods	3
PHC 7051	Advanced Biostatistics II	3
PHC 6441	Epidemiology of Health Disparity	3
PHC 6934	Scientific Writing and Oral Presentations in Epidemiology and Biostatistics	3

Specialization in Biostatistics: (15 credits)

PHC 7051	Advanced Biostatistics II	3
PHC 6715	Survey Research Methods	3
PHC 6xxx	Introduction to Logistic Regression and Survival Analysis	3
PHC 6013	Epidemiologic Methods	3
PHC 6062	Research Synthesis and Meta Analysis in Public Health	3

Elective Courses: (9 credits)

PHC 6001	Environmental and Occupational Epidemiology	3
PHC 6003	Infectious and Chronic Disease Epidemiology	3
PHC 6004	Injury Epidemiology and Prevention	3
PHC 6009	AIDS Epidemiology and Control	3
PHC 6012	Current Research in Epidemiology	3
PHC 6014	Behavioral Epidemiology	3
PHC 6013	Epidemiological Methods	3
PHC 6016	Social Epidemiology, Health Promotion and Policy	3

PHC 6762	International Public Health	3
PHC 6251	Disaster and Emergency Epidemiology	3
PHC 6536	Health Demography	3
PHC 6907	Independent Study in Public Health	1-3
** or any other advisor approved elective		

Capstone Courses: (6 credits)

PHC 6945	Supervised Field Experience in Public Health	1-6
or		
PHC 6977	Masters Research Project in Public Health	1-6
PHC 6xxx	Capstone Course in Public Health	3
or		
PHC 6xxx	Master's Thesis	6

Doctor of Philosophy in Public Health Specialization in Epidemiology

The Doctor of Philosophy (Ph.D.) in Public Health is available with a specialization in Epidemiology. Students will be expected to demonstrate significant research capacity by completing 60 credits beyond the Master's degree and through the writing of an original dissertation.

Required Courses

The program requires a minimum of 75 credit hours beyond the baccalaureate which includes a minimum of 24 hours of dissertation credits. There are three components to the SSPH Ph.D. curriculum. The first is a core curriculum shared across all tracks (12 credit hours). The second component is specific to the tracks (27 credit hours) and secondary field courses (12 credit hours). The third component consists of the dissertation, including 24 dissertation credit hours.

Shared Core Courses

PHC 6601	Emerging Issues in Public Health	3
PHC 6718	Quantitative Research Analysis in Health and Urban Affairs II (or other approved Quantitative Methods course)	3
PHC 7981	Research Concepts and Proposal Development	3
PHC 7705	Methods in Evidence Based Public Health	3

Courses for Epidemiology Track (minimum 18 credits with 9 at the 7000 level) A minimum of 9 hours in Method and 18 hours in Content Courses is required.

Method Courses

PHC 6703	Epidemiologic Research Methods III	3
PHC 6xxx	Sampling of Populations: Methods and Applications	3
PHC 6719	Quantitative Research Analysis in Health and Urban Affairs III	3

Content Courses

PHC 6000	Introduction to Public Health Epidemiology	3
PHC 6013	Epidemiologic Methods	3
PHC 6020	Clinical Epidemiology	3
PHC 6700	Methods and Analysis of Epidemiologic Research	3
PHC 6715	Survey Research in Public Health	3
PHC 6536	Health Demography	3
PHC 6009	AIDS Epidemiology and Control	3

PHC 6001	Environmental and Occupational Epidemiology	3
PHC 6004	Injury Epidemiology and Prevention	3
PHC 6014	Behavioral Epidemiology	3
PHC 6016	Social Epidemiology	3
PHC 6002	Infectious Disease Epidemiology	3
PHC 6007	Cancer Epidemiology	3
PHC 6008	Cardiovascular Disease Epidemiology	3
PHC 6934	Scientific Writing and Oral Presentation in Epidemiology and Biostatistics	3

Secondary Field Courses

At least 12 credit hours of approved secondary field courses. Secondary field courses selected from approved graduate school courses in consultation with academic advisor.

Dissertation Requirements

PHC 7980	Dissertation	24
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For additional and updated information about SSPH requirements, programs, and services, please visit our website at www.ssp.h.fiu.edu.

**FOR A COMPLETE LISTING OF COURSE
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508-516**

Health Promotion and Disease Prevention

H. Virginia McCoy, *Professor and Chair*

Luther Brewster, *Assistant Professor*

William W. Darrow, *Professor*

Jessy Devieux, *Associate Professor*

Robert Malow, *Professor*

Andrew Miracle, *Emeritus Professor*

Richard Palmer, *Assistant Professor*

Joseph Patterson, *Emeritus Professor*

Jesus Sanchez, *Assistant Professor*

The Department offers a Graduate Certificate, a Master's degree in Public Health with a specialization in Health Promotion and Disease Prevention and a Ph.D. in Public Health with a specialization in Health Promotion and Disease Prevention.

MPH in Health Promotion and Disease Prevention courses prepare students to develop and implement health promotion/health education programs in various sites. This program of study is concerned with personal and public health lifestyles, identification of risk factors and behavioral change strategies that promote positive health behaviors of individuals, groups, and community. See also Graduate Certificate in Health Promotion.

General Core Courses: (15 credits)

PHC 6000	Introduction to Public Health Epidemiology	3
PHC 6065	Health Statistics	3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3
HSA 5125	Introduction to Health Policy and Management	3

Specialization in Health Promotion and Disease Prevention Core Courses: (15 credits)

PHC 6600	Health Promotion Communication Theory and Design	3
PHC 6504	Introduction to Health Education and Wellness	3
PHC 6750	Program Development and Evaluation in Health Promotion	3
PHC 6704	Research Methods	3

PLUS ONE COURSE FROM THE FOLLOWING:

PHC 6751	Community Organization for Health Promotion	3
PHC 6580	Contemporary Issues in Health Promotion	3
PHC 5415	Public Health in Minority and Urban Populations	3

Elective Courses: (9 credits)

PHC 5009	AIDS: Contemporary Issues	3
PHC 5113	Communities and Public Health	3
PHC 5581	Public Health Aspects of Complementary and Alternative Medicine	3
PHC 5409	Public Health Behavior Change Theory and Practice	3
PHC 5415	Public Health in Minority and Urban Populations	3
PHC 5930	Public Health on the Internet	1
PHC 6111	Primary Health Care Strategies	3

PHC 6150	Public Health Policy Analysis and Formulation	3
PHC 6160	Public Health Budgeting and Financial Management	3
PHC 6443	Ethical Issues in Public Health	3
PHC 6502	Health Promotion in the Workplace	3
PHC 6751	Community Organization for Health Promotion	3
PHC 6530	Principles of Maternal and Child Health	3
PHC 6580	Contemporary Issues in Health Promotion	3
PHC 6585	Health Promotion in Clinical Settings	3
PHC 6589	Health Promotion in Institutional Settings	3
PHC 6907	Independent Study in Public Health	1-3
** or any other advisor approved elective		

Capstone Courses: (6 credits)

PHC 6945	Supervised Field Experience in Public Health	6
Required for all MPH students, unless student has at least 3 years of practical experience working in a public health setting. The student must apply for this exemption; upon approval the following may be selected as a capstone course:		
PHC 6977	Masters Research Project in Public Health	6
or		
PHC 6xxx	Master's Thesis	6

Doctor of Philosophy in Public Health Specialization in Health Promotion and Disease Prevention

The Doctor of Philosophy (Ph.D.) in Public Health is available with a specialization in Health Promotion and Disease Prevention. Students will be expected to demonstrate significant research capacity by completing 60 credits beyond the Master's degree and through the writing of an original dissertation.

Required Courses

The program requires a minimum of 75 credit hours beyond the baccalaureate which includes a minimum of 24 credit hours of dissertation credits. There are three components to the SSPH Ph.D. curriculum. The first is a core curriculum shared across all specializations (12 credit hours). The second component is specific to the specialization (27 credit hours) and secondary field courses (12 credit hours). The third component consists of the dissertation, including 24 dissertation credit hours.

Shared Core Courses

PHC 6601	Emerging Issues in Public Health	3
PHC 6718	Quantitative Research Analysis in Health and Urban Affairs II	3
(or other approved Quantitative Methods course)		
PHC 7981	Research Concepts and Proposal Development	3
PHC 7705	Methods in Evidence Based Public Health	3

Courses for Health Promotion and Disease Prevention Specialization (minimum 18 credits with 9 at the 7000 level) A minimum of 9 credit hours in Methods and 18 credit hours in Content Courses required.

Methods Courses: (9 credits)

Major advisor and the program committee for the student with identify an appropriate methods course from an approved list.

PHC 6715	Survey Research in Public Health	3
PHC 7702	Advanced Measurement in Public Health	3
PHC 6704	Principles of Research in Health and Social Services	3
PHC 6710	Qualitative Research Methods in Public Health	3
	(or other approved methods course)	

Content Courses: (18 credits)

(minimum 18 credits with 9 at the 7000 level)

PHC 6410	Health Behavior in Public Health	3
PHC 6751	Community Organization in Health Promotion	3
PHC 6580	Contemporary Issues in Health Promotion	3
PHC 6589	Health Promotion in Institutional Settings	3
PHC 7502	Health Promotion in the Workplace	3
PHC 7583	Policy and Practice in Health Promotion	3

Secondary field courses or Additional Concentration Outside of Specialization (minimum) 12

Courses to be selected in consultation with advisor from University offerings in a focused area appropriate to public health.

Dissertation Requirements

PHC 7980	Dissertation	24
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FOR A COMPLETE LISTING OF COURSE DESCRIPTIONS AND PREREQUISITES GO TO PAGES 508-516

Health Policy and Management

Gloria Deckard, *Chair and Associate Professor*

Nancy Borkowski, *Visiting Assistant Professor*

Gulcin Gumus, *Assistant Professor*

Frederick Newman, *Professor*

Max Rothman, *Senior Lecturer*

Vandon White, *Professor Emeritus*

The Department of Health Policy and Management offers graduate and undergraduate studies leading to Bachelor's and Master's degrees in Health Services Administration.

The management of health services occurs in an environment of organizational and technological change. Administrators charged with executive responsibilities must be grounded in a high degree of formal professional training followed by lifelong learning which fosters their continuous professional growth. Many of the same skills needed for executive management are now also required to provide leadership in staffing, directing, coordinating, and controlling the operational resources of administrative and clinical units in such organizations.

The Master of Health Services Administration (MHSA) provides professional education for management careers in health services organizations. The degree addresses the theories and issues of managing complex organizations in both public and private settings. The program is organized to meet the needs of the working student. Many individuals enrolled are already employed in administrative roles in the field. While enhancing their career, they bring the wealth of their experience to the classroom.

The Master's program is designed so that full-time students may complete all course work in five semesters. The same curriculum can be completed by part-time students within three years. Formal studies stress a basic foundation of professional knowledge, skills and competencies in management, planning, analytic and policy functions of health services administration.

Since these studies provide a professional emphasis, the Program utilizes a variety of local hospitals, long-term care facilities, mental health programs, multi-institution corporations, emergency medical systems, health maintenance organizations, community health centers, and related public health and private agencies to give students supervised field experiences and a 'practical laboratory' for operational research in health policy and management.

The goal of the program in Health Policy and Management is to create an academic center in which the University can respond to the educational needs of the field of health services administration. The Program's mission, therefore, is dedicated to the following educational objectives:

1. To provide professional studies in the theories, methods and practices of health care management, planning, analysis, applied research, and policy development in health services organizations.

2. To offer an educational program that is available to part-time and working adult students with the aid of web-assisted courses.

3. To extend consultation and technical assistance to appropriate organizational settings and practitioners in health services and administrative practice.

4. To conduct scholarly and applied research on various management problems and issues of significance to improve the delivery of health services.

5. To review and revise program curricula and objectives from time to time in order to keep current with the changing educational and professional needs of the field.

Master of Health Services Administration

Courses are sequenced to enhance the development of competencies as students progress through the curriculum. Students need to pay attention to course prerequisites and adhere to course sequencing.

Program Total: (46 credits)

Foundation Courses (15 credits)

HSA 5125	Introduction to Health Services	3
PHC 6065	Public Health Statistics	3
HSA 6185	Management and Organization in Health Care	3
HSA 6176	Financing and Reimbursement of Health Delivery Systems (Prereq: HSA 5125)	3
HSA 6415	Marketing and Demographic Analysis in Health Care (Prereq: HSA 5125 and PHC 6065)	3

Core Courses (Prerequisite: Completion of Foundation Courses)

HSA 6155	Health Policy and Economics	3
HSA 6175	Financial Management of Health Services	3
HSA 6426	Health Law and Legal Aspects of Management	3
HSA 6195	Economic and Decision Analyses in Healthcare	3
HSA 6197	Design and Management of Health Information Systems	3
HSA 6756	Evaluation and Outcome Measures in Health Care	3
PHC 6500	Foundations of Public Health	3
HSA 6186	Leadership and Organization in HC Systems	3

Integrative and Capstone Coursework: (Prerequisite: Completion of 36 credit hours in program)

HSA 6930	Professional Seminar	1
HSA 6149	Strategic Planning and Marketing of Health Care Services	3

Integrative Elective: (Prerequisite: Completion of HSA 6930)

Select one (3-6 credits)

HSA 6875	Administrative Residency (Prereq: HSA 6930 and Permission of Instructor)	1-6
HSA 6977	Master's Research Project (Prereq: HSA 6930 Permission of Instructor)	1-6

Administrative Residency

An administrative residency in a health care organization is offered to all students. Students lacking health services administrative experience are encouraged to complete an administrative residency.

The residency is considered an integral part of the educational process. It is designed to provide practical experience with the theories, concepts, and administrative

skills the students acquired academic study. The residency is normally arranged in an agency or institution compatible with the student's area of interest. The student works with an organizational preceptor in the health agency during this period, and the experience is also supervised by a faculty preceptor.

Students must apply for the administrative residency, complete a residency plan, be approved and be placed in an agency by the Program the semester before the residency begins.

For further information regarding residency requirements, reference should be made to the MHSA Administrative Residency Manual, which may be downloaded from the HPM website.

MPH Specialization Areas

The School offers a Master's degree in Public Health with a specialization in Health Policy and Management.

MPH in Health Policy and Management courses prepare students with professional education for management careers in health services organization. This program of study is concerned with the understanding of the context, management and financial issues for health care organizations by addressing the theories and issues of managing complex organizations in the public sector. See also Graduate Certificate in Health Policy and Management.

General Core Courses: (15 credits)

PHC 6000	Introduction to Public Health Epidemiology	3
PHC 6065	Health Statistics	.3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3
HSA 5125	Introduction to Health Policy and Management	3

Specialization in Health Policy and Management (15 credits)

HSA 6156	Economic and Decision Analysis in Health Care	3
HSA 6185	Management and Organizational Theory	3
HSA 6176	Financing and Reimbursement	3
HSA 6155	Health Policy and Economics	3
HSA 6197	Design and Management of Health Information Systems	3

Elective Courses: (9 credits)

PHC 5009	AIDS: Contemporary Issues	3
PHC 5113	Communities and Public Health	3
PHC 5581	Public Health Aspects of Complementary and Alternative Medicine	3
PHC 5409	Public Health Behavior Change Theory and Practice	3
PHC 5415	Public Health in Minority and Urban Populations	3
PHC 5930	Public Health on the Internet	1
PHC 6111	Primary Health Care Strategies	3
PHC 6150	Public Health Policy Analysis and Formulation	3
PHC 6160	Public Health Budgeting and Financial Management	3
PHC 6443	Ethical Issues in Public Health	3
PHC 6502	Health Promotion in the Workplace	3

PHC 6751	Community Organization for Health Promotion	3
PHC 6530	Principles of Maternal and Child Health	3
PHC 6580	Contemporary Issues in Health Promotion	3
PHC 6585	Health Promotion in Clinical Settings	3
PHC 6589	Health Promotion in Institutional Settings	3
PHC 6907	Independent Study in Public Health	1-3
** or any other advisor approved elective		

Capstone Courses: (6 credits)

PHC 6945	Supervised Field Experience in Public Health	3-6
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Required for all MPH students, unless student has at least 3 years of practical experience working in a public health setting. The student must apply for this exemption; upon approval the following may be selected as a capstone course:

PHC 6977	Masters Research Project in Public Health	3-6
	or	
PHC 6xxx	Master's Thesis	3-6

Master of Health Services Administration/ Master of Public Administration Joint Degree Program

Professionals in Public Administration and in Health Services Administration have expressed a substantial need to better understand both fields. Health services account for the largest category of expenditures in local and state governments, resulting in the need for public administrators who also are familiar with Health Services Administration. The vast majority of health services are provided by non-profit or government owned entities, resulting in the need for health services administrators who understand government administration. The Joint MHSA/MPA Degree responds to these needs.

This degree is the result of a joint effort by the Graduate Program in Health Services Administration in the School of Public Health and the Graduate Program in Public Administration in the School of Policy and Management. Both programs are fully accredited.

The Graduate Program in Health Services Administration is accredited by the Accrediting Commission on Education for Health Services Administration (ACEHSA). The Graduate Program in Public Administration is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA). Accreditation by these agencies ensures the student that the programs have been reviewed and meet the national standards for graduate studies in these fields.

The Joint MHSA/MPA degree prepares students for careers in public service and non-profit organizations, including management careers in health services organizations. It also prepares students for private sector positions having significant contact with public organizations. The degree addresses the theories and issues of managing complex organizations in both public and private settings.

The program is organized to meet the needs of the working student. Many individuals enrolled are already employed in administrative roles in government and health services delivery. While enhancing their career, they bring the value of their experience to the classroom.

Listed below are the courses and credits required for the joint degrees:

Health Services Administration Core MHSA Courses

Group 1		
HSA 5125	Intro to Health Service	3
HSA 6415	Marketing and Demographic Analysis in Health Care	3
HSA 6176	Financing and Reimbursement of Health Systems	3
PAD 6701**	Quantitative Methods in Public Administration	3
Group 2		
HSA 6155	Health Policy and Economics	3
PAD 6156**	Applied Organizations Theory and Behavior	3
Group 3		
HSA 6149	Strategic Planning and Marketing of Health Care Services	3
PAD 6417**	Human Resource Policy and Management	3
HSA 6197	Design and Management of Health Information Systems	3
HSA 6185	Management and Organizational Theory in Health Care	3
Health Services Specialization*		
Group 4		
HSA 6930	Professional Seminar in Health Services Management	1
HSA 6426	Health Law and Legal Aspects of Management	3
HSA 6717	Advanced Health Services Management and Research Seminar	3
Total MHSA		<u>37</u>

Public Administration Core MPA Courses

Group 1		
PAD 5256	Public Economics and Cost Benefit Analysis	3
PAD 6227	Public Finance and the Budgetary Process	3
PAD 6306	Policy Analysis and Program Planning	3
PAD 6701**	Quantitative Methods in Public Administration	3
Group 2		
PAD 6434	Leadership and Decision-making	3
PAD 6436	Professionalism and Ethics	3
PAD 6156**	Applied Organizations Theory and Behavior	3
URS 6806	Applied Research and Evaluation Techniques	3
Group 3		
PAD 6417**	Human Resource Policy and Management	3
Health Services Specialization*		
Specialization		
Group 4		
Specialization		
Specialization		
PAD 6056	The Practice of Public Management	3
Total MPA		<u>30</u>

**Total Courses for Joint Degree (67 credits).

*HSA 6977 or HSA 6875 – one of these courses must be taken.

Juris Doctor/Master of Health Services Administration Joint Degree Program

The faculties of the College of Law and the School of Public Health at Florida International University have approved a joint degree program culminating in both a Juris Doctor degree (J.D.), awarded by the College of Law, and a Master of Health Services Administration degree (M.H.S.A.), awarded by the School of Public Health. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Essential criteria relating to the joint degree program are as follows:

1. Candidates for the program must meet the entrance requirements for and be accepted by both programs. Both programs must be informed by the student at the time of application to the second program that the student intends to pursue the joint degree.

2. The joint degree program is not open to students who have already earned one degree.

3. For law students, enrollment in the M.H.S.A. program is required no later than the completion of 63 credit hours in the J.D. program. For M.H.S.A. students enrollment in the J.D. program is required no later than the third semester after beginning the M.H.S.A. program.

4. A student must satisfy the curriculum requirements for each degree before either degree is awarded. The School of Public Health will allow 12 credit hours of College of Law courses, as approved by the Director of the School of Public Health, to be credited toward both the M.H.S.A. and J.D. degrees. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the J.D. degree for courses taken in the M.H.S.A. curriculum upon completion of the M.H.S.A. degree with a grade point average of 3.0 or higher.

5. A student accepted by both degree programs may begin studies in either the College of Law or the School of Public Health, but full-time law students must take the first two semesters of law study consecutively and part-time law students must take the first three semesters of law study consecutively. Students electing to begin study in one school under the joint degree program may enter the second school thereafter without once again qualifying for admission so long as they have notified the second school before the end of the first week of the first semester in the second school and are in good academic standing when studies commence in the second school.

6. A student enrolled in the joint degree program will not receive either degree until the student has satisfied all of the requirements for both degrees, or until the student has satisfied the requirements of one of the degrees as if the student had not been a joint degree candidate.

7. Students in the joint degree program will be eligible for the graduate teaching assistantships and research assistantships in the School of Public Health on the same basis as other M.H.S.A. students, subject to the guidelines and restrictions set by the School of Public Health.

The joint degree program began with the 2002-2003 academic year.

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FOR A COMPLETE LISTING OF COURSE DESCRIPTIONS AND PREREQUISITES GO TO PAGES 508-516

Online Master of Public Health

Students may take the Master of Public Health totally or partially through courses online. All admissions and graduation requirements are the same as the traditional MPH program. Each online class is the equivalent of an on-campus section of the same course, in terms of objectives, content, rigor, and transferability. Students must meet stated prerequisites or assessment scores, where applicable. The main difference is the degree of flexibility that an Online format provides the student.

Program Requirements

The Online Master of Public Health requires completion of at least 45 semester hours of approved course work with a minimum of a 'B' (3.0) average. Core Public Health courses must be passed with a grade of 'B' or higher. All work applicable to the degree must be completed within six years of first enrollment in the master's program.

Public Health Core Courses (18 credits)

PHC 6000	Introduction to Public Health	
	Epidemiology	3
PHC 6065	Health Statistics	3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3
PHC 6102	Introduction to PH Policy and Management	3
PHC 6704	Research Methods in Health & Social Services	3

Required Courses (21 credits)

Students are required to take a minimum of 21 credits of the following advised graduate public health electives. Courses must be approved by faculty advisor.

PHC 6750	Program Development and Evaluation in Health Promotion	3
HUN 6522	Public Health Nutrition	3
HUN 7523	Community Nutrition	3
PHC 6704	Research in Health and Social Services	3
PHC 5409	Public Health Behavior Change Theory and Practice	3
PHC 5415	Public Health in Minority and Urban Populations	3
PHC 6001	Environmental Epidemiology	3
PHC 6003	Chronic and Infectious Disease in Epidemiology	3
PHC 6004	Injury Epidemiology & Prevention	3
PHC 6007	Cancer Epidemiology	3
PHC 6111	Primary Health Care Strategies	3
PHC 6055	Data Management	3
PHC 6307	Exposure Assessment in Environmental and Occupational Epidemiology	3
PHC 6310	Environmental & Occupational Toxicology	3
PHC 6355	Occupational Health & Safety	3
PHC 6600	Health Promotion Communication Theory and Design	3
PHC 6751	Community Organization for Health Promotion	3
PHC 6504	Introduction to Health Education and Wellness	3
PHC 6539	Health Demography	3
PHC 6589	Health Promotion in Institutional Settings	3
PHC 6907	Independent Study in Public Health	1-3

** or any other advisor approved elective

Capstone Courses (6 credits)

Capstone Courses: (6 credits)

PHC 6945	Supervised Field Experience in Public Health	1-6
	or	
PHC 6977	Masters Research Project in Public Health	1-6
PHC 6xxx	Capstone Course in Public Health	3
	or	
PHC 6xxx	Master's Thesis	6

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FOR A COMPLETE LISTING OF COURSE DESCRIPTIONS AND PREREQUISITES GO TO PAGES 508-516

Certificate Programs

Graduate Certificate Program in Community Nutrition

The Graduate Certificate Program seeks to provide graduate level instruction in nutrition to non-graduate degree practitioners or as a specialization within the MPH degree. Upon completion of the certificate the student will be able to develop, implement, manage, and assess nutrition programs for local, state and Federal public health agencies.

Program Requirements

The Graduate Certificate Program requires completion of 18 credit hours of course work. The following prerequisites or their equivalents must have been completed: HSC 3549 Clinical Physiology for Health Professionals, HUN 4240 Nutrition Biochemistry, and HUN 4241 Advanced Nutrition.

Required Courses (18 credits)

- HUN 6522 Public Health Nutrition
 HUN 5611 Nutrition Education in the Community
 One course in Macronutrients:
 HUN 6307 Carbohydrates and Lipids
 or
 HUN 6327 Proteins
 One course in Micronutrients:
 HUN 6335 Functions of Vitamins
 or
 HUN 6355 Minerals in Human Nutrition
 Two of the following:
 HUN 6255 Nutrition in Wellness
 HUN 5123 Ethnic Influences on Nutrition and Food Habits
 HUN 6435 Nutrition and Aging
 HUN 5195 International Nutrition

Graduate Certificate Program in Environmental Health

The Certificate Program in Environmental and Occupational Health is intended for the following people: environmental health professionals seeking additional training, current degree candidates in the program, and non-degree candidates who wish to begin formal training in environmental health. The certificate program requires six Environmental and Occupational Health courses, for a total of 18 credit hours.

The Graduate Certificate Program seeks to provide graduate level instruction in environmental health to non-graduate degree practitioners or as a specialization within the MPH degree. Upon completion of the certificate program the student will be able to develop, implement, manage, and assess environmental and occupational health programs for local, state and Federal regulatory agencies. The program has been developed to allow working professionals in Public Health to expand or upgrade their skills and to provide incremental academic steps for individuals heading towards their first or second professional degree in environmental health sciences.

Program Requirements

The Graduate Certificate Program requires the completion of 18 graduate credits. The student must demonstrate proficiency in the identification and characterization of human and ecological exposures to environmental and

occupational contaminants. Students who are proficient in any one area covered by the required courses may choose from selected alternative courses to complete their requirements.

Required Courses (18 credits)

- PHC 6315 Introduction to Environmental Health
 PHC 6355 Public Health and Occupational Health and Safety
 PHC 6310 Environmental and Occupational Toxicology
 PHC 6307 Exposure Assessment in Environmental and Occupational Epidemiology
 PHC 6001 Environmental and Occupational Epidemiology
 PHC 6004 Injury Epidemiology and Violence Prevention

Admission Requirements

Applicants must hold a bachelor's degree or equivalent from an accredited college or university, and must have completed a prerequisite graduate course in biostatistics or social science statistics.

Graduation (completion) Requirements

Completion of 18 graduate credits with an overall 'B' average.

Graduate Certificate in Epidemiology

This Graduate Certificate seeks to provide graduate level instruction in epidemiology to non-graduate-degree practitioners. Students shall be provided with a scientific foundation to utilize the fundamentals of biometry to describe and study variables related to disease risk, and to organize and maintain databases, while at the same time be provided with opportunities for practical application.

Program Requirements

The Graduate Certificate requires the completion of 18 graduate credits. The student must demonstrate proficiency in research methodology, basic statistical and computer skills related to distribution and determinants of disease. If students are proficient in any one area covered by the required courses, alternative courses may be selected. Substitution of courses must be approved by the advisor. Students should consult with advisors since new courses are frequently added, and some courses have prerequisites and enrollment stipulations.

Required Courses (18 credits)

- | | | |
|----------|--|---|
| PHC 6003 | Chronic and Infectious Diseases Epidemiology | 3 |
| PHC 6000 | Introduction to Public Health Epidemiology | 3 |
| PHC 6001 | Environmental and Occupational Epidemiology | 3 |
| PHC 6004 | Injury Epidemiology and Prevention | 3 |
| PHC 6009 | AIDS Epidemiology and Control | 3 |
| PHC 6536 | Health Demography | 3 |

Alternate Courses (6 credit maximum)

If students are proficient in any one area covered by the required courses, the following courses may be substituted:

- | | | |
|----------|----------------------------------|---|
| PHC 6012 | Current Research in Epidemiology | 3 |
| PHC 6014 | Behavioral Epidemiology | 3 |
| PHC 6013 | Epidemiology Methods | 3 |

PHC 6016 Social Epidemiology, Health Promotion and Policy 3

Admission Requirements

Applicants must hold a bachelor's degree or equivalent from an accredited college or university.

Graduation (completion) Requirements

Completion of 18 graduate credits with an overall 'B' average.

Graduate Certificate Program in Health Promotion

The Graduate Certificate Program seeks to provide graduate level instruction in health promotion to non-graduate-degreed practitioners. Students will gain a scientific foundation for designing, conducting, and evaluating health promotion programs in public health, while at the same time benefit from numerous opportunities for practical application. Online Certificate is available.

Program Requirements

The Graduate Certificate Program requires completion of 18 graduate credits. The student must demonstrate proficiency in health promotion design, implementation, and evaluation. If students are proficient in any one area covered by the required courses, alternative courses must be approved by the advisor. A graduate statistics course (biostatistics, social statistics) is a prerequisite.

Students should consult with advisors since new courses are frequently added, and some courses have prerequisites and enrollment stipulations.

Required Courses¹: (18 credits)

PHC 6504	Introduction to Health Education and Wellness	3
PHC 6410	Health Behavior in Public Health	3
PHC 6000	Introduction to Epidemiology	3
PHC 6600	Health Promotion Communication Theory and Design	3
PHC 6750	Program Development and Evaluation in Health Promotion	3
PHC 6589	Health Promotion in Institutional Settings	3

¹If students are proficient in any one area covered by the required courses, the following alternative courses may be substituted:

Alternative Courses: (6 credit maximum)

PHC 6112	Health Risk Appraisal
PHC 7702	Advanced Measurement in Public Health
PHC 6531L	Environmental Health Risk Assessment
PHC 6004	Injury Epidemiology and Prevention
PHC 6520	Public Health Aspects of Foodborne Diseases
PHC 6580	Contemporary Issues in Health Promotion
PHC 6530	Principles of Maternal and Child Health
PHC 6016	Social Epidemiology, Health Promotion, and Policy
PHC 5415	Public Health in Minority/Urban Populations

Admission Requirements

Applicants must hold a bachelor's degree or equivalent from an accredited college or university.

Graduation (completion) Requirements

Completion of 18 graduate credits with an overall 'B' average and passing the Certified Health Education Specialist (CHES) exam.

Graduate Certificate in Health Services Administration

The objective of this graduate certificate is to provide individuals with a basic understanding of the context, management and financial issues for health care organizations.

Admission

Students must have an earned baccalaureate degree with a GPA of 3.0 or higher.

Prerequisite:

Computer Literacy including: Word, Excel and Powerpoint

Program of Study (18)

Students must adhere to prerequisite and sequencing requirements.

HSA 5125 Introduction to Health Policy and Management must be taken in the first semester.

All students will take

HSA 5125	Intro to Health Services	3
HSA 6185	Health Organization and Management	3
HSA 6176	Financing and Reimbursement of Health Systems (Prereq: HSA 5125)	3
HSA 6155	Health Policy and Economics (Prereq: PHC 6050)	3
HSA 6186	Leadership and Organizational Behavior in Health Care (Prereq: HSA 6185)	3
HSA 6197	Design and Management of Health Information Systems (Prereq: PHC 6065)	3

Graduate Certificate in Public Health Foundations

The graduate certificate program requires the completion of 18 graduate credits. The student must demonstrate proficiency in basic statistical and computer skills related to distribution and determinants of disease. If students are proficient in any one area covered by the required courses, alternative courses may be selected. Substitution of courses must be approved by the advisor. Students should consult with advisors since new courses are frequently added, and some courses have prerequisites and enrollment stipulations.

Admission

Applicants must hold a bachelor's degree or equivalent from accredited college or university.

Required Courses (18 Credits Total):

PHC 6000	Introduction to Public Health Epidemiology	3
PHC 6065	Public Health Statistics	3

PHC 6102	Introduction to Health Policy and Management	3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3
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For additional and updated information about SSPH requirements, programs, and services, please visit our website at www.ssph.fiu.edu.

Course Descriptions

Definition of Prefixes

DIE - Dietetics; FOS - Food Science; FSS - Food Service Systems; HSA - Health Services Administration; HSC - Health Sciences; HUN - Human Nutrition; IHS - Interdisciplinary Health Sciences; PHC - Public Health; URS - Urban and Regional Studies

DIE 5247 Trends in Therapeutic Nutrition (3). Evaluation and interpretation of current research in dietary care of metabolic diseases. Prerequisites: Diet therapy or approval of the instructor.

DIE 5936 Advanced Practice Seminar (1-3). Designed to provide didactic components in tandem with practice learning experiences in health care institutions. Covers material in clinical dietetics, management, and community nutrition. Utilizes a team approach and will draw on specialists from all areas of dietetics. Corequisites: DIE 5946, DIE 5947, DIE 5948 or permission of the instructor. (S)

DIE 5946 Advanced Supervised Dietetics Practice I (1-6). Advanced practical application of knowledge and skills in a supervised practice setting. Prerequisite: Permission of the instructor. DI course does not count towards M.S. degree. (S)

DIE 5947 Advanced Supervised Dietetics Practice II (1-6). Continuation of advanced practical application of knowledge and skills in a supervised practice setting. Prerequisite: Permission of the instructor. DI course does not count towards M.S. degree. (F)

DIE 5948 Advanced Practicum in Clinical Nutrition (1-6). Preplanned clinical experience at the professional level in clinical therapeutic nutrition. Prerequisite: Permission of the instructor. DI course does not count towards M.S. degree. (F)

DIE 6128 Advanced Management of Dietary Systems (3). Application of management and organizational theory to dietetic systems in health and community institutions.

DIE 6259 Management of Nutrition Services (3). Analysis of interdisciplinary nutrition services delivery with emphasis on management models and theories regarding division of work, quality improvement and productivity, leadership, motivation and planning, organizing, staffing, directing, and controlling.

DIE 6368 Advanced Techniques in Dietetic Practice (2). Techniques and approaches in changing nutritional behavior, establishing private practice, providing dietetic services in various size institutions, hospitals, nursing homes, and in the community. Prerequisites: DIE 4435, DIE 4435L or equivalent. Corequisite: DIE 6368L. (S, even years)

DIE 6368L Advanced Techniques Dietetic Practice Lab (1). Individual practice in conducting interviews, planning nutritional care, changing nutritional behavior, and providing dietetic consultation. Prerequisite: Permission of the instructor. Corequisite: DIE 6368. (S, even years)

DIE 6568 Research Methods in Dietetics (3). Consideration of scientific methods and theoretical orientation as applied to research in dietetics. Special consideration given to various techniques of investigation,

data collection, data organization, and interpretation. Prerequisites: STA 6166 or permission of the instructor.

DIE 6578 Qualitative Research Methods in Dietetics (3). Application of qualitative research methods including field and case study approaches in interpreting and designing research studies. Introduction to interdisciplinary research. Prerequisite: DIE 6568.

DIE 6906 Readings in Dietetics and Nutrition (1-3). Individual advanced study in a comprehensive overview of dietetics and nutrition or in-depth advanced study of a specialty. Prerequisites: Permission of the instructor and advanced standing in graduate program. (F,S,SS)

DIE 6907 Individual Study in Dietetics (1-3). Intensive individual investigation of a phase of dietetics. Emphasis on recent findings in dietetics and allied disciplines. Prerequisite: Permission of the instructor. (F,S,SS)

DIE 6915 Supervised Research (1-3). Continuation of thesis research under thesis advisor. Repeatable. Prerequisite: Completion of all other required course work. (F,S,SS)

DIE 6929 Specialized Short Courses in Dietetics and Nutrition (1-3). Intense courses on specialized topics in dietetics and nutrition for the advanced student or professional. Topic based on current nutrition concerns. Prerequisites: Advance graduate standing and permission of the instructor.

DIE 6935 Special Topics in Dietetics (3). In-depth study of historical, epidemiological, prevention, and treatment aspects of topics related to dietetics. Prerequisites: Competence in topic covered, admission to graduate program.

DIE 6937 Graduate Seminar in Dietetics and Nutrition (1). Presentations by researchers and doctoral students on studies, theories, applications; journal club presentations by students. Two semesters enrollment, M.S. students; three semesters Ph.D. students. (F,S)

DIE 6971 Thesis in Dietetics and Nutrition (1-6). Prerequisites: DIE 6568 or DIE 6578, 12 hours of graduate study and permission of Thesis advisor. (F,S,SS)

DIE 7566 Research Concept Development in Dietetics and Nutrition (3). Grant proposal writing for dietetic and nutrition research. Prerequisite: DIE 6568, STA 6166, and STA 6167.

DIE 7980 Ph.D. Dissertation (1-12). Research for doctoral dissertation. Prerequisite: Permission of Major Professor and Doctoral Candidacy.

FOS 6236 Food Toxicology & Food Safety (3). Discusses food and water borne bacterial, parasitic, and viral infections and intoxication. Examines food additives, and contaminants. Describes toxic food constituents as well as naturally occurring toxicants. Prerequisites: Graduate standing and food science competency.

FSS 6535 Computer Assisted Food and Nutritional Services Management (3). Advanced course in computer analysis and utilization for detection and resolution of problems of food service and nutritional care. Prerequisites: Advanced graduate standing, DIE 6128 or equivalent, and computer competency.

GEY 5006 Foundations in Gerontology for Health Professions (3). Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

GEY 5600 Physical Change and Healthy Aging (3). Primary health care and wellness with discussion and assessment of normal physiological alterations and their relationship to common health concerns and medical problems of older adults.

HSA 5125 Introduction to Health Policy and Management (3). The American health care system is broadly analyzed in social, economic, and political terms, including examination of its major operational and programmatic components as they have evolved in their changing patterns and trends of organizational development.

HSA 5177 Financing and Reimbursement for Long Term Care Facilities (3). This course introduces the theory and practice of government regulations as they pertain to long term care facilities. The program seeks to identify the critical elements for securing payments for service and study relevant capital investment procedures and policies. Prerequisite: HSA 5225. Corequisite: HSA 5227.

HSA 5225 Long Term Care Management I (3). Long term care facility organization and management are studied. Management implications of the social, economic, financial, and regulatory environment of nursing homes are examined. Prerequisite: HSA 6185.

HSA 5226 Management of Long Term Care Systems (3). Organizational, financial, and policy issues in the management of long term care systems in the U.S. with special emphasis on the State of Florida.

HSA 5227 Long Term Care Management II (3). Survey of theories of gerontic care for understanding the aging process. Focus is on the application of knowledge of the aging process to management and care given in nursing homes. Corequisite: HSA 5816.

HSA 5455 Ethical Decisions in Health Services Administration (3). This course will study ethical principles as they apply to areas of management, supervision and clinical practice in the delivery of health care. Emphasis is on managerial decision-making. Prerequisites: HSA 5125, HSA 6185.

HSA 5816 Practicum in Applied Management in Long Term Care (3). Students will spend 180 hours in supervised practice in a nursing home setting. They carry out managerial responsibilities related to the administration of the facility. Corequisite: HSA 5227.

HSA 5876L Administrative Residency in Nursing Home Setting (3-6). Students will spend 480 hours of supervised practice in a selected nursing home to gain experience in organization and management within the nursing environment. Prerequisites: HSA 5816, HSA 5225, HSA 5226, HSA 5227.

HSA 6149 Strategic Planning and Marketing of Health Care Services (3). Principles, techniques, and case study applications of strategic planning and marketing in the context of changing environmental, policy, and competitive

forces in the health services industry. Prerequisite: Completion of 36 credit hours in program coursework.

HSA 6155 Health Policy and Economics (3). The impact of government, private sector, and various interest groups on health care policy determination is analyzed through the application of basic economic principles. Prerequisites: Completion of Foundation Courses or minimum of 9 credit hours of program coursework including HSA 5125, HSA 6185, PHC 6065, HSA 6176.

HSA 6156 Economic and Decision Analysis in Health Services (3). The course is designed to focus on health economics and decision analysis of issues in health services policy and management. Economics will be used as a tool to analyze health care problems and to understand the functioning of health care markets. Prerequisites: Completion of Foundation Courses or minimum of 9 credit hours of program coursework including HSA 5125, HSA 6185, PHC 6065, HSA 6176.

HSA 6175 Financial Management of Health Systems (3). Aspects of modern hospital and health care organization financial management are covered to prepare students for executive roles in policy planning and control responsibilities involving budgeting, auditing, investing, capital financing, etc. Prerequisites: Completion of Foundation Courses or minimum of 9 credit hours of program coursework including HSA 5125, HSA 6185, PHC 6065, HSA 6176.

HSA 6176 Financing & Reimbursement of Health Systems (3). Introduction to principles and applications of health care finance based on financial and managerial accounting. Financing models and reimbursement strategies are analyzed. Prerequisite: HSA 5125.

HSA 6185 Management and Organizational Theory in Health Care (3). Fundamentals of management and organizational theory with focus on roles and functions of managers, and the influences of organizational structure and design in the dynamic environment of health care systems.

HSA 6186 Leadership and Organization Behavior in Health Care Systems (3). Examine leadership and organizational behavior in health care settings. Personal and profession growth are encouraged through integrative study of individual, group and organizations issues. Prerequisite: HSA 6185.

HSA 6187 Managing Human Resources and Health Professions (3). Study of human resource functions and activities necessary to enhance knowledge, competencies, skills, attitudes and behavior and to improve individual and organizational performance in health care organizations. Prerequisite: HSA 6185.

HSA 6197 Design and Management of Health Information Systems (3). The development and management of health information systems to support managerial decision-making. Emphasis is on the integration of clinical, personnel, and financial data. Prerequisite: PHC 6065.

HSA 6205 Hospital and Health Facilities Organization (3). Administrative theory and management principles are examined in their application to the organizational analysis

of hospitals and health care facilities. Prerequisites: HSA 5125, HSA 6185 or permission of the instructor.

HSA 6215 HMO and Ambulatory Care Administration (3). Overview of the management process employed in health maintenance organizations (HMO's) and other group medical practices operating under various financial arrangements, including prepayment. Prerequisites: HSA 5125, HSA 6185, or permission of the instructor.

HSA 6415 Marketing and Demographic Analysis in Health Care (3). This course is designed to familiarize students with analytical procedures and empirical techniques of market analysis and to equip students for practical work in market analysis. Prerequisite: Computer Skills.

HSA 6426 Health Law and Legal Aspects of Management (3). The broad range of legal issues in health care and administrative aspects of law that concern health care managers are surveyed for implications concerning malpractice, patient rights, contracts, liability and immunity, taxation, surgical consent, etc. Prerequisites: HSA 6185 or permission of the instructor.

HSA 6717 Advanced Health Services Management and Research Seminar (2). Integrates the theoretical and practical knowledge of other courses and activities in the curriculum. Selected case studies and relevant research provide the substantive framework for seminar analysis of issues and policy questions. Prerequisites: Completion of all other course work or permission of the instructor.

HSA 6759 Evaluation and Outcome Measures in Health Care (3). Program evaluation as part of an assessment of effectiveness, outcomes and resource consumption (costs). Evaluation models and design are analyzed. Proposal writing is emphasized. Prerequisites: Completion of Foundation Courses or minimum of 9 credit hours of program coursework including HSA 5125, HSA 6185, PHC 6065, HSA 6176.

HSA 6875 Administrative Residency (1-6). Off-campus placement in residency with health care organizations under supervision of a managing preceptor at the site. Prerequisites: HSA 6930 and approval of the coordinator.

HSA 6905 Graduate Independent Study (1-6). This course is designed to allow students an opportunity for in-depth literature research or an action-oriented project carried out under the supervision of their faculty advisor. Prerequisite: Permission of faculty advisor.

HSA 6930 Professional Seminar in Health Services Management (1). A professional seminar to provide career development skills in preparation for residency or master's project. Prerequisite: Completed 36 credit hours in the program sequence.

HSA 6977 Masters Research Project (1-6). The student will be field afforded the opportunity to conduct a research project on a specific health care management problem in a community or institutional setting. A formal proposal will be prepared and approved by faculty. Students will be expected to demonstrate during the course of this research project that they can implement theoretical knowledge and skills learned earlier in courses on research methods and design. Prerequisites: HSA 6930 and permission of advisor.

HSC 7585 Theory Development in Health Promotion (3). Discussion and critique of the structural components and research processes related to the origination and construction of health promotion theories. Prerequisites: PHC 6410 and PHC 5409.

HUN 5123 Ethnic Influences on Nutrition and Food Habits (3). Systematic study of food habits of various cultural groups. Emphasis on methodology, analysis of data, relationship of food habits to nutritional standards, and corrective measures. Includes laboratory. Prerequisite: Competency in food preparation and nutrition. Recommended for non-majors.

HUN 5195 International Nutrition: Problems, Policies, and Planning (3). Advanced study of magnitude, causes and nature of undernutrition in developing countries; emphasis on programs, planning and policies directed toward alleviating hunger. Prerequisite: Permission of the instructor. Recommended for non-majors.

HUN 5245 Nutrition and Biochemistry (3). Advanced study of the relationship of nutrition and biochemistry with emphasis on digestion, absorption, metabolism of nutrients, and determination of norms. Prerequisites: Organic Chemistry and Physiology

HUN 5611 Nutrition Education in the Community (3). In-depth study of nutrition education information and methods in the community including the nutrition education component of school food service and other congregate meal programs. Prerequisites: Recent courses in nutrition education or permission of the instructor.

HUN 5621 Food, Nutrition and Communication (3). Concepts and techniques for effective professional communication with individuals, groups and other professionals. Emphasis on communication via mass media. Prerequisites: Competency in food and nutrition knowledge.

HUN 6248 Sports Nutrition (3). The influence of exercise on specific nutrient demands and utilization of nutrients will be examined. Nutritional requirements and interrelationships between nutrition and exercise in the prevention and management of common diseases such as obesity, hypertension, diabetes and cardiovascular disease will also be discussed. Prerequisites: Human Nutrition and Intermediate Physiology. (S, odd years)

HUN 6254 Drug and Nutrient Interaction (3). The interaction of drug and nutrient metabolism in relation to optimum nutrition. Prerequisites: Advanced Nutrition, Biochemistry, Physiology.

HUN 6255 Nutrition in Wellness Program (3). Examination of required factors for successful development, implementation and evaluation of wellness programs and investigation of interrelationships between nutrition/physical activity as means of chronic disease risk reduction. Prerequisites: Advanced Nutrition and Nutrition Education.

HUN 6257 Physio/Psychology of Food Intake (3). Examination of food intake regulation with applications in both research and practice. Prerequisites: Competence in nutrition and physiology

HUN 6266 Nutritional Assessment (3). In-depth study of the methodology and application of nutritional assessment.

Prerequisites: Advanced Nutrition, physiology, and biochemistry.

HUN 6285 Nutrition and Metabolism I (3). Advanced study of the human nutrition of carbohydrates, lipid, fiber, thiamin, riboflavin, pantothenic acid, biotin and choline. Prerequisites: Advanced Nutrition, Biochemistry, Physiology.

HUN 6286 Nutrition and Metabolism II (3). Advanced study of the human nutrition of protein, energy, folate, vitamin B6, vitamin B12 and water. Prerequisites: Advanced Nutrition, Biochemistry, Physiology.

HUN 6287 Nutrition and Metabolism III (3). Advanced study of the human nutrition of vitamins C, A, D, E, and K, and essential macro and trace minerals. Prerequisites: Advanced Nutrition, Biochemistry, Physiology.

HUN 6295 Contemporary Issues in Food and Nutrition (3). Critical evaluation of current controversies in nutrition and dietetics research. Prerequisites: Advanced Nutrition, Biochemistry, Physiology, Research Methods.

HUN 6307 Carbohydrates and Lipids (3). The biological, physiological and metabolic functions of carbohydrate and lipids as they relate to human nutrition. Prerequisites: Biochemistry, Advanced Nutrition and Physiology.

HUN 6327 Proteins (3). Protein metabolism, physiology and nutrition. Prerequisites: Biochemistry, Advanced Nutrition, and Physiology.

HUN 6335 Functions of Vitamins (3). Integration of chemical, biological and physiological functions of vitamins as related to human nutrition. Prerequisites: Advanced Nutrition, Biochemistry, Physiology. (S, even years)

HUN 6355 Minerals in Human Nutrition (3). The physiological and metabolic functions of selected macro and trace minerals as they relate to nutritional status in humans. Prerequisites: Advanced Nutrition, Biochemistry, Physiology. (S, odd years)

HUN 6435 Nutrition and Aging (3). Changes associated with aging and the impact of nutrition on these changes. Prerequisite: Permission of the instructor. (S, odd years)

HUN 6522 Public Health Nutrition (3). Development and assessment of nutrition programs for the general population throughout the life cycle. Prerequisites: DIE 3317 or equivalent.

HUN 7408 Nutrition Across the Lifespan (3). The course will explore social, economic, physiologic, and lifestyle factors that influence nutrition status across the stages of growth and development, maturation, and aging. Prerequisites: HUN 4403, HUN 4241, DIE 5247.

HUN 7523 Community Nutrition (3). Evaluate models and methodologies to identify public health nutrition issues; analyze current and historical research/nutrition policy; recognize necessary infrastructure to support policy. Prerequisites: HUN 4410, HUN 6522, PHC 6500.

HUN 7524 Nutrition Science and Implications for Community Health (3). Critical examination and synthesis of current human nutrition science topics with emphasis on implications to human health, nutrition, public health policy, and research. Prerequisites: Nutritional Biochemistry and Pathophysiology.

IHS 6502 Principles of Clinical Trials (3). Advanced study of clinical trials including research design, ethics, monitoring and analysis. Prerequisites: PHC 6704 or equivalent.

IHS 6937 Interdisciplinary Graduate Seminar (1-3). Multidisciplinary seminar including foundations of reasoning and investigative methods focusing on a multi-dimensional problem related to social, legal, policy, economic, and health issues. Prerequisite: Research Methods.

PHC 5009 AIDS: Contemporary Issues (3). This course introduces the contemporary social and public health issues associated with the AIDS epidemic and the policies and programs designed to prevent HIV transmission.

PHC 5113 Communities and Public Health (3). This course addresses the socio-historical growth of Miami-Dade's populations and explores these developments in the context of public health; including contextual, psychological and physical issues.

PHC 5409 Public Health Behavior Change Theory and Practice (3). A course for health promotion practitioners who lack formal training in behavior change foundations and strategies. The course emphasizes applications to practical development of health promotion interventions. (S)

PHC 5412 Cultural Competency for Public Health (3). Emphasizes the socio-historical growth of South Florida's populations in relation to public health competency skills. Review and critique diverse socioeconomic and historical issues relating to public health practices.

PHC 5415 Public Health in Minority/Urban Population (3). Covers the scope of Public Health Issues related to minority and urban populations with an emphasis on health care status, utilization of the health care system and expenditures. (F)

PHC 5581 Public Health Aspects of Complementary and Alternative Medicine (3). Introduction of theory, practice and scientific evidence for complementary and alternative medicine. Emphasis on regulatory issues and quality assurance; politics of use and social, cultural and historical factors.

PHC 5930 Public Health on the Internet (1). An extensive examination of public health topics on the internet, subject varies each semester. Theoretical, conceptual, and analytical tools for electronic searching. Prerequisite: Microsoft Windows Literacy.

PHC 6000 Introduction to Public Health Epidemiology (3). Introduction to the study of the distribution, determinants, and measurement of health and disease in populations, including study methods and their application to specific diseases and conditions. (F,S)

PHC 6001 Environmental and Occupational Epidemiology (3). This course covers outbreaks; cluster analysis; cross-sectional, case-control, cohort, ecological and time series designs; surveillance programs; environmental cancer; reproductive hazards, biological monitoring and biomarkers. Prerequisites: PHC 6315 and PHC 6000.

PHC 6002 Infectious and Chronic Disease Epidemiology (3). A review of selected epidemiologic research methodology as it applies to infectious and chronic diseases and its application towards understanding selected major infectious and chronic diseases from a population based perspective. Prerequisite: PHC 6000 Intro to Epidemiology.

PHC 6003 Infectious Disease Epidemiology (3). This course covers principles specific to infectious disease epidemiology, explores the application of epidemiologic methods to infectious disease problems, and examines surveillance, and outbreak investigation. Prerequisites: PHC 6000 and PHC 6065.

PHC 6004 Injury Epidemiology and Prevention (3). Analyzes the impact and extent of injuries as a public health problem. Issues of prevention, sources of data, environment, social and occupational aspects are included in an epidemiological approach. Prerequisite: PHC 6000. (SS)

PHC 6007 Cancer Epidemiology (3). This course will provide an understanding of the epidemiological patterns, etiology and risk factors of cancer from a community and population perspective. Prerequisite: PHC 6000.

PHC 6008 Cardiovascular Disease Epidemiology (3). This course will increase understanding of epidemiological patterns, etiology and risk factors of selected major cardiovascular disease from a population based perspective. Prerequisites: PHC 6000, PHC 6065.

PHC 6009 AIDS Epidemiology and Control (3). Reviews the epidemiology, virology, immunology, and clinical aspects of HIV, and also examines its impact upon risk groups and the responses of society to the epidemic. (S)

PHC 6012 Current Research in Epidemiology (3). This course will examine current areas of research in epidemiology and bring students into contact with researchers in various fields. Prerequisites: PHC 6000, PHC 6065. (S)

PHC 6013 Epidemiological Methods (3). This course will examine epidemiological methods emphasizing the actual conduct of studies. Students will undertake a simulated research project. Prerequisites: PHC 6000, PHC 6065. (S)

PHC 6014 Behavioral Epidemiology (3). This course will examine human behaviors as determinants of health and disease, methods of exploring these relationships, and ways of altering risk behaviors. Prerequisite: PHC 6000.

PHC 6016 Social Epidemiology, Health Promotion and Policy (3). Explores the epidemiological aspects of health and medical care of the poor and disadvantaged population groups. Emphasis on the relationship of organization and delivery of health care, including health promotion, prevention, and related topics. Prerequisite: PHC 6000. (F)

PHC 6020 Clinical Epidemiology (3). Focus on experimental study design; development phases, recruitment of subjects and data collection; assessment of adverse effects, measurement and adherence to therapy; and sub-group analysis. Prerequisites: PHC 6065, PHC 6000, PHC 6xxx Intro to Biostatistical Computing.

PHC 6055 Data Management and Applied Epidemiologic Analysis (3). Covers practical issues related to the management, security, and analysis of epidemiologic data by creating, managing, and analyzing an epidemiologic database using statistical software packages.

PHC 6056 Longitudinal Health Data Analysis (3). Applied longitudinal health data analysis; methods to compare different health treatments and behavioral interventions. Focus will be on models for single and multiple correlated public health outcomes. Prerequisites: PHC 6xxx Regression Analysis, PHC 6xxx Analysis of Variance, Matrix Algebra.

PHC 6062 Research Synthesis and Meta-Analysis in Public Health (3). Use of meta-analysis to explore data, identify sources of variation among studies and identify future research questions; meta-analytic methods and software reviewed and applied to data sets.

PHC 6064 Models for Binary Public Health Outcomes (3). This course will offer students a focused introduction to statistical models for the analysis of binary medical and public health data. The course will provide an introduction to the application of statistical models for PH outcomes in epidemiology, dietetics and nursing. Prerequisite: PHC 6718.

PHC 6065 Health Statistics (3). An introduction to the basic principles of inferential statistics as applied to public health. The course includes those components of biometry routinely used in public health. Prerequisite: Undergraduate course in statistics. Open only to graduate students in Public Health. (F,S)

PHC 6102 Introduction to Public Health Policy and Management (3). This course introduces students to the underlying principles of public health policy and management. Emphasis is on the philosophy, and extent of public health structure; organization and administration of public health law and regulations will be analyzed.

PHC 6110 Health Risk Appraisal (3). Health promotion technique designed for identifying personal health risks and the use of these methodologies for inducing behavioral change. Evaluation of the effectiveness of various health appraisal instruments. Prerequisite: Biostatistics and Epidemiology.

PHC 6111 Primary Health Care Strategies (3). Examines the rationale, planning, and implementation of community-oriented primary health care. Emphasizes primary care as an integral part of the health care system and an essential part of public health. Prerequisites: PHC 6500 or permission of the instructor.

PHC 6150 Public Health Policy Analysis and Formulation (3). Strategies for formulating public health policy; political processes; resource allocation, organization, and participation. Examination of current policy issues and efforts to effect change. (SS)

PHC 6160 Public Health Budgeting and Financial Management (3). This course is designed for public health practitioners. Emphasis will be placed on models necessary to develop operational budgets in the public sector of health care and to anticipate financial anomalies.

PHC 6190 National Health Database Evaluation: Methods and Applications (3). This course discusses the principles of survey sampling and their application in health sciences. The focus is on the statistical design and analyses of national/state health databases. Prerequisite: PHC 6197.

PHC 6251 Disaster and Emergency Epidemiology (3). Disaster and Emergency Epidemiology studies the public health response to natural disasters, environmental emergencies and perpetuated acts of terrorism.

PHC 6307 Exposure Assessment in Environmental and Occupational Epidemiology (3). Surveys available mechanisms utilized by public health and environmental agencies to monitor levels of pollution, environmental quality, and change in environmental conditions which impact human health. Prerequisites: PHC 6000, PHC 6065, PHC 6315. (SS)

PHC 6310 Environmental Occupational Toxicology (3). Theory and practice of occupational and environmental toxicology; health effects of toxins in humans; principles of toxicology; toxicokinetics; and health effects of toxins on organ systems. Prerequisite: PHC 6315.

PHC 6311 Environmental Health Risk Assessment (3). This course explores environmental health care management problems associated with risk to the population from exposure to particular agents and conditions. Emphasizes practical problems in risk estimation through the case method approach. Prerequisite: PHC 6315. (S)

PHC 6315 Introduction to Environmental Health (3). An overview of public health philosophy and government organization in the provision of official agency, environmental, and preventive medicine services, with particular emphasis on the regulatory and surveillance responsibilities authorized in the public sector. (F,S)

PHC 6316 Environmental Health Management (3). The course provides the student with skills in management of the programs dealing with food, water, waste, radiation, workplace, air, energy, human establishments, and humanitarian challenges. Prerequisites: PHC 6315 or permission of the instructor.

PHC 6355 Occupational Health and Safety (3). The course covers recognition of occupational hazards, injuries and diseases and the principles of occupational safety including safety regulations and standards and models of accident causation. Prerequisite: PHC 6315.

PHC 6356 Fundamentals of Industrial Hygiene (3). The course covers recognition, evaluation, and control of chemical biological and physical agents in the workplace; application to exposure, control measures, and standard setting procedures. Prerequisite: PHC 6315.

PHC 6374 Environmental Disasters and Human Health (3). This course will provide an overview of environmental disasters and the measures designed to reduce the impact of disasters on Environmental Health. It aims to strengthen the ability of people to withstand the disruption of their accustomed infrastructure and systems for environmental health.

PHC 6410 Health Behavior and Public Health (3). The overall goal of this course is to introduce the student to the

learning and behavioral science theories that provide the framework for the practice of health promotion and public health. Prerequisites: Public Health major or permission of the instructor. (F,S)

PHC 6422 Legal and Regulatory Aspects of Environmental Health (3). The application of law as it relates to the environment and human health. Legal process and rule-making; cost-benefit analysis; judicial review; evidentiary problems; and other elements of environmental law are emphasized. Prerequisites: PHC 6000, PHC 6065 and PHC 6315. (S)

PHC 6441 Epidemiology of Health Disparity (3). This course is designed to provide an overview and understanding of Health Disparity, its indicators, measuring methods and models as well as theoretical underpinning for explanation of Health Disparity. Prerequisites: PHC 6000 and PHC 6065.

PHC 6443 Ethical Issues in Public Health (3). The role of Bioethics on Public Health Issues. (F,S)

PHC 6500 Foundations of Public Health Practice (3). Philosophy, nature, and scope of public health; organization and administration; principles of disease prevention and health promotion; current issues and trends; socioeconomic and political forces. Prerequisites: Public Health major or permission of the instructor. (F,S,SS)

PHC 6502 Health Promotion in the Workplace (3). Emphasis is on program design, management, and evaluation of health promotion in industry. Current issues on health assessment, fitness, and emotional stress in the workplace will be considered. Prerequisites: Health Promotion Concentration or permission of the instructor. (SS)

PHC 6504 Introduction to Public Health Education and Wellness (3). Primarily intended to introduce graduate students to concepts and principles underlying the use of Public Health and Behavioral Strategies to positively influence behavioral patterns. Prerequisites: Public Health major or permission of the instructor. (S)

PHC 6520 Public Health Aspects of Foodborne Diseases (3). Examines the scope of the foodborne disease problem; factors that contribute to outbreak of foodborne disease; strategies for the prevention and control of these diseases are explored. Prerequisites: PHC 6000, PHC 6065, and PHC 6315. (SS)

PHC 6530 Principles of Maternal and Child Health (3). Covers the scope of the field of maternal and child health with emphasis on the needs of infants, children, youth, women and families in the reproductive cycle and programs designed to meet these needs. Prerequisites: Public Health major or permission of the instructor. (S)

PHC 6536 Health Demography (3). The study of basic population structure, composition, trends and relationship to health status. Implications of demographic trends, policies for public health; population growth, immigration, infant mortality. Prerequisites: PHC 6065 or permission of the instructor. (SS)

PHC 6538 Genetic Issues in Public Health (3). Genetic issues and topics that impact on Public Health will be

covered such as HW gene frequencies and HUGO. A public health perspective with a field of study.

PHC 6580 Contemporary Issues in Health Promotion (3). Current problems and findings in health promotion content areas such as smoking, alcohol, and drug misuse, family health, safety, physical fitness, communicable and chronic diseases will be discussed. Prerequisites: PHC 6000 and PHC 6065. (SS)

PHC 6585 Health Promotion in Clinical Settings (3). Analysis of the role, methods, and techniques of health promotion and patient education pertaining to hospitals, clinics and other ambulatory health services. Prerequisites: PHC 6000 and PHC 6065. (S)

PHC 6589 Health Promotion in Institutional Settings (3). This course will investigate the role, methods and techniques used to promote health in diverse settings such as clinic and community agencies, schools, universities and workplaces. (SS)

PHC 6600 Health Promotion Communication Theory and Design (3). Theory, design, and implementation of health education communication utilized in reaching the public. Emphasis on the critical analysis of the communication processes; group techniques and media methods; and the consultation process. Prerequisites: Health Promotion Concentration or by permission of the instructor. (F)

PHC 6601 Emerging Issues in Public Health (3). Investigation of emerging public health issues, such as public health informatics, genomics, global health, policy, and law, and public health ethics, within the framework of ecological model.

PHC 6700 Methods and Analysis in Epidemiological Research (3). This course provides understanding of principles, methods and analytical techniques applied in epidemiologic research using multimedia and interpersonal approaches of instructions to motivate and explain with real life examples. Prerequisite: PHC 6000.

PHC 6703 Epidemiologic Research Methods III (3). Focus on complex study design, methodological and analytic issues in epidemiologic studies, quantitative framework, inferences, confounding, synergism, and modeling techniques will be addressed. Prerequisites: PHC 6013, PHC 6xxx – Public Health Statistics II.

PHC 6704 Research Methods in Health and Social Services (3). Study of scientific research, inductive and deductive thinking, research methods and design as applied to healthcare, social services and government agencies. Prerequisite: Undergraduate Statistics.

PHC 6706 Research Methods in Public Health (3). Study of scientific research, inductive and deductive thinking, research methods and design as applied to the field of Public Health. Prerequisite: Undergraduate statistics course.

PHC 6709 Quantitative Research Analysis in Health Urban Affairs I (3). Application of quantitative techniques used for research analysis in health and urban affairs research and practice settings. Prerequisites: STA 3145 or STA 6166 or equivalent.

PHC 6710 Qualitative Research Methods in Public Health (3). Critical issues, theoretical and practical applications for conducting qualitative research explored as they relate to health, social service and public administration environments. Prerequisite: Graduate Research Methods.

PHC 6715 Survey Research in Public Health (3). Health survey design, implementation and analysis, and interpretation of data. Emphasis on practical aspects of conducting health surveys. Study of existing health surveys. Prerequisites: PHC 6000 and PHC 6065. (F,S)

PHC 6718 Quantitative Research Analysis in Health and Urban Affairs II (3). Application of quantitative techniques used for research analysis in health and urban affairs practice settings with focus on multivariate analysis. Prerequisites: STA 6167 or equivalent; PHC 6709.

PHC 6719 Quantitative Research Analysis in Health and Urban Affairs III (3). Application of quantitative techniques used for research analysis in health and urban affairs practice settings with focus on statistical modeling. Prerequisites: STA 6167 or equivalent.

PHC 6750 Program Development and Evaluation in Health Promotion (3). Principles and procedures in health promotion program development and evaluation. Emphasis on needs assessment, planning models, evaluation designs, data collection, analysis and reporting. Prerequisites: PHC 6000 and PHC 6065. (SS)

PHC 6751 Community Organization for Health Promotion (3). Emphasis is on the diagnosis of community health problems and various organizational strategies utilized for effective solution. Review and analysis of community organization process; resources; and the role of health promotion specialist. Prerequisites: Health Promotion Concentration or permission of the instructor. (F)

PHC 6762 International Public Health (3). This course describes international differences in the distribution and determinants of disease and health, and examines interventions aimed at improving health status. (F)

PHC 6763 Global Perspectives of Environmental Health in Caribbean and Latin America (3). The course describes the relationship between human health and the environment in developing countries of the Caribbean and Latin America. Prerequisite: PHC 6315.

PHC 6901 Readings in Public Health (1-3). Individual advanced study in a comprehensive overview of Public Health or in-depth advanced study of a speciality. Prerequisites: Permission of instructor and Advanced standing in the graduate program.

PHC 6907 Independent Study: Public Health (1-3). Allows student investigations of special topics and issues utilizing literature searches, analysis, or active performance in public health settings under the direction of faculty supervision. Prerequisite: Permission of the faculty advisor.

PHC 6914L Current Topics in Environmental and Occupational Health Science Research Lab (3). To conduct laboratory based analytical research and collect data.

PHC 6917 Environmental and Occupational Health Sciences Pre Doctoral Research (3). This course is designed to provide the Pre-Doctoral student with experience in the conduct of a research project with guidance from appropriate environmental and occupational health faculty.

PHC 6920 Special Topics in Environmental and Occupational Health (3). This course is designed to impart in depth knowledge of emerging issues in the area of environmental and occupational health.

PHC 6921 Environmental Health and Toxicology Seminar (3). Designed to develop critical and analytical thinking skills in the environmental and occupational health research.

PHC 6934 Scientific Writing and Oral Presentations in Epidemiology and Biostatistics (3). Covers the planning and execution of written and oral presentations in epidemiology/biostatistics by critically evaluating published articles and preparing a manuscript and an oral presentation. Prerequisites: PHC 6000 and PHC 6065.

PHC 6935 Special Topics in Health Promotion (3). A detailed exploration into particular research methodologies, approaches and techniques relevant to Health Promotion. Topic will vary depending upon the instructor. Course may be repeated. Prerequisite: Permission of the instructor.

PHC 6939 Special Topics in Cardiovascular Disease Epidemiology (3). The purpose of this course is designed to impart in-depth knowledge of a particular cardiovascular disease or risk factor that is affecting populations nationally and or internationally. Prerequisites: PHC 6000, PHC 6065, or permission of the instructor.

PHC 6945 Supervised Field Experience in Public Health (1-6). Preceptor guided experience in a public health organization. Experience will include orientation; observation; and participation in the aspects of the agency's program. Prerequisite: Permission of the faculty advisor. (F,S,SS)

PHC 6977 Master's Research Project (1-6). This course provides the student with an opportunity to explore indepth a specific topic or issue of interest in public health.

PHC 7018C Advanced Environmental Health (3). The objective of this course is to teach students advanced toxicology principles such as toxicokinetics, polymorphisms of metabolizing enzymes, toxicogenomics, and biomarkers of toxic exposure. Prerequisite: PHC 6310.

PHC 7050 Advanced Biostatistics I (3). Application of linear statistical model to public health data held in the Public Health Informatics Laboratory. Utilizes various statistical software. Prerequisites: PHC 6065 or permission of the instructor.

PHC 7051 Advanced Biostatistics II (3). Design and analysis of experiments for public health data. ANOVA and mixed model analysis, testing assumptions diagnostics, uses the Public Health Informatics Laboratory. Utilizes various statistical software. Prerequisites: PHC 7050 or permission of the instructor.

PHC 7054 Advanced Biostatistics III (3). Generalized linear model and estimating equation approaches for non-linear public health data. Held in the Public Health Informatics Laboratory utilizing various statistical software. Prerequisites: PHC 7050, PHC 7051, or permission of the instructor.

PHC 7162 Grant Writing in Public Health (3). Course covers proposal writing political/social aspects of "grantmanship" identifying sources of grant funding doing research to support the application, and tailoring the proposal to specific audiences. Prerequisites: PHC 6718, PHC 7705, PHC 7981.

PHC 7300 Biological Basis of Environmental Public Health (3). This course will discuss current research and biomedical advances in the field of environmental and occupational health, disease prevention, diagnosis, control, and treatment.

PHC 7372 Signal Transduction in Environmental Health and Toxicology (3). Designed to develop critical and analytical thinking about how hazardous agents interfere with normal signaling while others may mimic endogenous stimulants and mediators.

PHC 7374C Advanced in Cellular and Environmental Toxicology (3). This is a doctoral level advanced course covering the toxicological basis of human disease and the recent progress made in the field. Course provides coverage of environmental agents and experimental approaches. Prerequisite: PHC 6310.

PHC 7436 Advanced Issues in Economic Evaluation of Health Care Programs (3). Economic evaluation issues including cost analysis, health outcomes, health state utilities, measurement of population health measures; cost-effectiveness, cost-benefit, and cost-utility analysis. Prerequisites: Biostatistics, Health Economics.

PHC 7502 Health Promotion in the Workplace (3). This course emphasizes program design, management, and evaluation of health promotion in corporations. Issues in health assessment, fitness, wellness, and stress will be covered. Prerequisites: PHC 6589, PHC 6410.

PHC 7583 Policy and Practice in Health Promotion (3). Intensive exploration of health promotion policies with critical analysis. Preparation to develop effective policies and to assess the appropriate practice of health promotion or different levels.

PHC 7584 Specialized Issues in Health Promotion I (3). A seminar on advanced topics in health promotion and disease prevention research in cross-cultural settings in the context of the ecological model. Prerequisite: PHC 6410.

PHC 7588 Specialized Issues in Health Promotion II (3). This course provides an overview of the origins, development, and unfulfilled promises of health promotion for disease prevention. Designed for doctoral students to understand how public health programs have been planned, implemented, evaluated and maintained. Prerequisite: PHC 7584.

PHC 7702 Advanced Measurement in Public Health (3). Advanced course in measurement and evaluation in public health. Computer applications for public health practice

emphasized. Prerequisites: PHC 6065, PHC 6715, PHC 6750.

PHC 7705 Methods in Evidence Based Public Health (3). Review of methods in evidence based public health; study designs addressing patient reported outcome measures; health status measures, area-based health intervention evaluation, quality of life and survival measures in health interventions. Prerequisite: PHC 6065.

PHC 7711 Methodological Issues in Scientific Inquiry of Public Health Research (3). Understanding and application of analytical methods in the philosophy of science in order to explore systematically the critical methodological issues underlying public health research. Prerequisite: Doctoral standing.

PHC 7716 Advanced Research Methods: Survey Research (3). Conceptualization of survey research including how to conduct a survey and present results for professional publication. Prerequisites: PHC 6704, PHC 6065.

PHC 7933 Seminar in Biostatistics (1-6). Course emphasis on the biostatistical methods used in research. Various biostatisticians will present their current research and lead class discussions on the development of their research agenda. Prerequisites: PHC 7050, PHC 7051, PHC 7054.

PHC 7980 Dissertation (1-12). Research for doctoral dissertation under the supervision of a major professor and a doctoral committee. Prerequisites: Permission of instructor and doctoral candidacy.

PHC 7981 Research Concepts and Proposal Development (3). The purpose of this course is to present the basic general components of research, to describe methods, and to present perspectives specifically and directly applicable to the field of public health. Prerequisites: PHC 6718 or equivalent.

For additional and updated information about SSPH requirements, programs, and services, please visit or website www.ssph.fiu.edu.

Robert R. Stempel School of Public Health

Interim Dean

Associate Dean, Academic Affairs

Assistant Dean, Student and Alumni Affairs

Chairs:

Dietetics & Nutrition

Environmental and Occupational Health

Health Promotion and Disease Prevention

Health Policy and Management

Epidemiology and Biostatistics

Michele Ciccazzo

H. Virginia McCoy

Saul Sztam

Fatma Huffman

Deodutta Roy

H. Virginia McCoy

Gloria Deckard

Nasar Ahmed

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Serdar, Berrin, M.D., Ph.D. (*University of North Carolina*), Assistant Professor, Environmental and Occupational Health

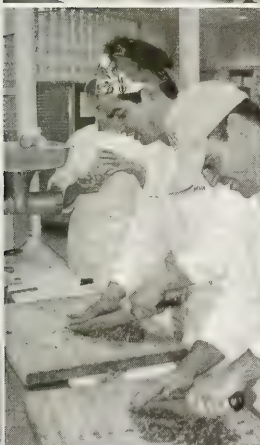
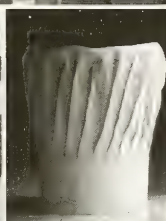
Trepka, Mary Jo, Ph.D. (*University of Colorado*), Associate Professor, Epidemiology and Biostatistics

White, Vandon E., Ph.D. (*Purdue University*), Professor Emeritus, Health Policy and Management

For additional and updated information about SSPH requirements, programs, and services, please visit our website at www.ssphe.fiu.edu.



FLORIDA INTERNATIONAL UNIVERSITY



SCHOOL OF
**HOSPITALITY
AND TOURISM
MANAGEMENT**

School of Hospitality and Tourism Management

Joseph J. West, *Dean and Professor*

Rocco M. Angelo, *Associate Dean and Professor*

Joan S. Remington, *Associate Dean for Academics and Director, Career Development; Director, Institute for Hospitality and Tourism Education and Research, Instructor*

Elio C. Bellucci, *Professor*

Cheryl M. Carter, *Instructor*

Patrick J. Cassidy, *Instructor*

M. Nancy Del Risco, *Lecturer*

Marcel R. Escoffier, *Associate Professor*

Barry Gump, *Visiting Professor*

Gerald W. Lattin, *Professor Emeritus*

Twila-Mae Logan, *Visiting Assistant Professor*

Steven V. Moll, *Associate Professor*

Michael J. Moran, *Instructor*

William J. Morgan, Jr., *Professor Emeritus*

Nestor Portocarrero, *Professor*

Roger Probst, *Instructor*

J. Kevin Robson, *Associate Professor*

Donald G. Rosellini, *Lecturer*

Eunju Suh, *Assistant Professor*

David M. Talty, *Instructor*

Mary L. Tanke, *Associate Professor*

Jinlin Zhao, *Associate Professor and Director, Graduate Programs*

The School of Hospitality and Tourism Management offers Bachelor's and Master's Degrees in Hospitality Management and Tourism Studies and Certificate Programs that combine practical experience with classroom theory to assist the student to gain the understanding, skills, and techniques needed to qualify for job opportunities and to achieve his or her career goals in the hospitality and tourism industries.

With the cooperation of industry executives, the School has created an internship program which literally utilizes the hotels, resorts, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. The advanced phase of the graduate internship program provides each student a structured training experience normally not available to a student until he or she has entered the industry after graduation.

An Industry Advisory Board - which includes outstanding executives in the lodging, food service and tourism industries - works regularly with the faculty, staff, and students of the School to formulate and update a curriculum that is current, flexible, and related to the needs of the hospitality and tourism industries.

The School was designated a Program of Distinction by the former Florida Board of Education.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics, and to respond to the mandates of the Florida Board of Education and the Florida Legislature. Changes may be made without advanced notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Location

The School is located on 200 tropical acres in a resort-like setting at the scenic Biscayne Bay Campus at Biscayne Boulevard and Northeast 151 Street, North Miami, Florida.

Admission

Applicants to the School must submit a Graduate Application for Admission to the University and must follow the regular University admission procedures described in the Admission section of the catalog. Applicants must be eligible for admission to the University before admission to the School.

Admissions standards for the Master of Science degrees in Hospitality Management and Tourism Studies are an earned bachelor's degree with a 3.0 grade point average (GPA) on a 4.0 scale. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 550 paper-based, 213 computer-based, or 80 on the iBT TOEFL or 6.5 overall on the IELTS is required.

An applicant who feels the earned GPA is not indicative of his or her ability to be successful in a graduate degree program may also submit scores on the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) which will be taken into consideration by the admissions committee in its evaluation of the application.

Applicants who meet admissions criteria, but do not have undergraduate preparation in Hospitality Management or Tourism Studies, may be required to complete a series of undergraduate preparatory courses. Specific courses will depend upon the individual's undergraduate preparation. Undergraduate prerequisite courses may be taken at FIU in combination with required graduate courses. A maximum of six semester hours of related graduate credit may be transferred from another university or from the graduate programs of this University provided they meet University requirements.

There is a requirement that all students complete 1000 hours of practical training work experience in the Hospitality or Tourism Industry in addition to the Graduate Internship of 300 hours. A minimum of 800 hours of the total 1300 hours must be completed while enrolled at FIU. Work experience documentation is required. All graduating students are required to attend the "Life After College" Workshop.

Degree Requirements

To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for a master's degree.
2. Complete a minimum of 39 semesters hours of graduate level course work in the Hospitality Management or Tourism Studies curriculum. (Exception: Executive Hospitality Management Track).
3. Earn a minimum grade point average of 'B' (3.0) in all approved courses in the student's graduate program of study.

No courses, in which a grade below 'C' is earned, may be counted toward the Master's Degree in Hospitality

Management or Tourism Studies. However, all approved work taken as a graduate student will be counted in computing the grade point average, including courses graded 'D' or 'F'.

Non-Degree Seeking Students

Individuals currently employed in hospitality and tourism field, who do not have the educational requirements to meet degree admission standards may be interested in enrolling in certain specific courses to improve their skills and to enhance their chances for promotion. Any person currently employed in the field may register as a Non Degree Seeking Student for a maximum of 12 semester hours.

Master of Science in Hospitality Management

Undergraduate Prerequisites (15)

ENC 3311	Advanced Research Writing	3
FSS 3230C	Introductory Commercial Food Production	3
HFT 3403	Accounting for the Hospitality Industry	3
HFT 3503	Hospitality Marketing Strategy	3
HFT 4464	Financial Analysis in the Hospitality Industry	3

Attendance at Dean's Lectures is required for all graduate students

Core Requirements (27)

HFT 6245	Hospitality/Tourism Service Operations Analysis	3
HFT 6246	Organizational Behavior in the Hospitality Industry	3
HFT 6296	Strategic Management for Hospitality and Tourism	3
HFT 6299	Case Studies in Hospitality Management	3
HFT 6446	Hospitality Enterprise Technologies	3
HFT 6477	Financial Management for the Hospitality Industry	3
HFT 6476	Feasibility Studies for the Hospitality Industry ¹	3
	or	
HFT 6478	Restaurant Development ¹	3
HFT 6586	Research and Statistical Methods	3
HFT 6697	Hospitality Law Seminar	3
HFT 6946	Graduate Internship	0

Graduate Hospitality Management Electives: 12

¹In place of HFT 6476 or HFT 6478 and two electives, the student may choose to complete HFT 6916, the Hospitality Industry Research Project, which carries a nine credit hour requirement. An additional graduate statistics course will be required.

Graduate Internship

Required for all graduate students unless prior experience warrants a waiver of this requirement (see advisor for information).

Industry Experience Requirement: 1300 hours

1000 hours of hospitality related practical training work experience is required plus 300 hours for the Graduate Internship. A minimum of 800 hours must be completed

while enrolled in the graduate program at FIU. Work experience documentation is required.

Master of Science in Hospitality Management

Executive Masters Track Hospitality Management: (30)

Management Experience

A minimum of five years hospitality related management experience is required for acceptance into this track. Applicants must currently hold a management position in the hospitality or tourism industry. A Bachelor's degree from an accredited institution is required.

Undergraduate Prerequisites: (9)

HFT 3403	Accounting for the Hospitality Industry	3
HFT 4464	Financial Analysis in the Hospitality Industry	3
HFT 4474	Management Accounting for the Hospitality Industry	3

Core Requirements (30)

HFT 6245	Hospitality/Tourism Service Operations Analysis	3
HFT 6257	Contemporary Issues in the Lodging Industry	3
HFT 6296	Strategic Management for Hospitality and Tourism	3
HFT 6299	Case Studies in Hospitality Management	3
HFT 6429	Hospitality Asset Management	3
HFT 6446	Hospitality Enterprise Technologies	3
HFT 6477	Financial Management for the Hospitality Industry	3
HFT 6476	Feasibility Studies for the Hospitality Industry	3
	or	
HFT 6478	Restaurant Development	3
HFT 6555	e-Commerce for Hospitality and Tourism	3
HFT 6596	Marketing Management	3

Evening courses available. Also available via distance learning.

Master of Science in Hospitality Management Thesis Track

Undergraduate Prerequisites (15)

ENC 3311	Advanced Research Writing	3
FSS 3230C	Introductory Commercial Food Production	3
HFT 3403	Accounting for the Hospitality Industry	3
HFT 3503	Hospitality Marketing Strategy	3
HFT 4464	Financial Analysis in the Hospitality Industry	3

Attendance at Dean's Lectures is required for all graduate students

Course Requirements (39)

HFT 6245	Hospitality/Tourism Service Operations Analysis	3
HFT 6246	Organizational Behavior in the Hospitality Industry	3
HFT 6296	Strategic Management for Hospitality and Tourism	3

HFT 6299	Case Studies in Hospitality Management	3
HFT 6446	Hospitality Enterprise Technologies	3
HFT 6477	Financial Management for the Hospitality Industry	3
HFT 6697	Hospitality Law Seminar	3
HFT 6972	Thesis	9
HFT 6946	Graduate Internship	0
STA 5206	Design of Experiments	3
STA 6166	Statistical Methods in Research I	3
STA 6167	Statistical Methods in Research II	3

Combined Bachelor of Science/Master of Science in Hospitality Management

Admission Requirements

- Current enrollment in the Bachelor's Degree program in Hospitality Management at FIU.
- Completed at least 60 credit hours of course work.
- Current GPA must be 3.2 or higher.

General Requirements

- Completed bachelor's Degree in Hospitality Management at FIU.
- Course work
- Complete the separate 4+1 applications
- Applicants should be submitted in the first semester of the student's senior year

Required (30 credits):

HFT 6245	Hospitality/Tourism Service Operations Analysis
HFT 6246	Organizational Behavior in the Hospitality Industry
HFT 6296	Strategic Management for Hospitality and Tourism
HFT 6299	Case Studies in Hospitality Management
HFT 6446	Hospitality Enterprise Technologies
HFT 6477	Financial Management of the Hospitality Industry
HFT 6476	Feasibility Studies for the Hospitality Industry
	or
HFT 6478	Restaurant Development
HFT 6586	Research and Statistical Methods
HFT 6697	Hospitality Law Seminar
HFT 6946	Graduate Internship

Electives

4 courses selected from the Hospitality and Tourism Management Graduate Course Offerings

Overlap

Up to 4 courses (12 credits) may be used to satisfy both the bachelor's and master's degree requirements. Courses must be 5000- or 6000- level School of Hospitality and Tourism Management Graduate Courses.

Graduate Certificate in Hospitality Management

This program will consist of eighteen (18) credits of graduate level course work in Hospitality Management and will be designed by the student with close supervision by the School's graduate advisor. This program is primarily designed for students who are intent upon improving their

academic credentials for teaching at an accredited community college level academic program.

Required Courses

HFT 6245	Hospitality and Tourism Service Operations Management
HFT 6246	Organizational Behavior in the Hospitality Industry

Electives

Students will complete twelve (12) credits of graduate level courses.

Students will take eighteen (18) credits of graduate level course work from the School of Hospitality and Tourism Management. Students will be required to fulfill all admission requirements for the University Graduate School as well as for the Master of Science degree program in Hospitality Management.

Graduate Certificate in Tourism Studies

This program will consist of eighteen (18) credits of graduate level course work in Tourism Studies and will be designed by the student with close supervision by the School's graduate advisor. This program is primarily designed for students who are intent upon improving their academic credentials for teaching at an accredited community college level academic program.

Required Courses

HFT 6706	Environmental Management Systems for Tourism
HFT 6715	Problem Solving for Travel and Hospitality

Electives

Students will complete twelve (12) credits of graduate level courses.

Students will take eighteen (18) credits of graduate level course work from the School of Hospitality and Tourism Management. Students will be required to fulfill all admission requirements for the University Graduate School as well as for the Master of Science degree program in Tourism Studies.

Course Descriptions

Definition of Prefixes

FSS - Food Service Systems; HFT - Hotel, Food, Tourism.

FSS 5755 International Food Production Management

(3). Study of international commercial food production management designed for hospitality graduate students. This course includes instruction on international cooking principles as well as hands-on food preparation in the food laboratories. This course includes weekly interactive lectures and a laboratory experience to allow the learner to develop skills required in food preparation and management.

FSS 6108 Purchasing and Menu Planning (3).

Advanced information on sources, grades and standards, criteria for selection, purchasing and storage for the major foods, including development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production staff. Item analysis and merchandising features are emphasized.

FSS 6365 Food Service Systems (3). Principles of system analysis applied to the food service industry. Attention is given to the organization of modern food production, preparation, and distribution systems. Case study problems require application of economic and management principles for solution.

FSS 6452 Advanced Food Service Design Operations (3). Advanced planning, programming, and project documentation for commercial food service facilities. Spatial, environmental, and electro-mechanical design factors are stressed, with particular emphasis on efficiency modulation and investment aspects. Recommended: HFT 4343

FSS 6834 Food Service Research (3). The planning, executing, and reporting of an individual research project dealing with significant problems in food service. Students demonstrate an understanding of research techniques through data collection, evaluation, and interpretation.

HFT 5485 Financial Accounting and Analysis for the Hospitality Industry (3). This course will introduce students to the basic accounting framework in the hospitality and tourism industries, including an understanding of the recording of transactions and the structure of hospitality financial statements based on the Uniform System of Accounts for the Lodging Industry (USAL).

HFT 5547 Leadership Training for Team Building (3). Students will learn leadership skills to facilitate team building activities in order to improve group communication, trust, problem-solving, and productivity.

HFT 5655 Franchising and Management Contracts (3). A comprehensive course designed to examine the franchise/franchiser, franchisee and owner/manager relationships in hotel and food service operations and the mutual obligations created by each type of contract.

HFT 5719 Implementation and Management of Tourism Projects (3). Practical development, implementation, and management of tourism projects and programs with emphasis on developing tour packages for international and developing nation's situations. Prerequisites: HFT 3700 or equivalent.

HFT 5877 Wine Technology (3). This course is an introduction to the appreciation and management of wine, successful operators merchandising wines in restaurants, retail stores, supermarkets, and wholesale companies. Students learn the economies of buying and selling wine, how to taste and evaluate wines of the great vineyards around the world.

HFT 5878 Wine, Culture and Society (3). A survey of the renowned old and new world wine regions, their evolution in western culture and their role in contemporary society. Grape Varieties/celebrated vineyards; wine classification systems; influence of media on wine consumption. Detailed focus on the restaurant industry in Miami and the U.S. Management of restaurant wine lists. Prerequisite: Must be at least 21 years of age.

HFT 5901, 5906, 5911 Independent Studies (VAR). With permission from the Associate Dean, students may engage in independent research projects and other

approved phases of independent study. Prerequisite: Permission.

HFT 5957 China Study Abroad Research Program (3). Field research opportunity for students who want to interact with local scholars, policy makers, and hospitality industry leaders to do an in-depth research of the hospitality industry in a foreign country.

HFT 6208 Hospitality Industry Consulting (3). Provides in-depth analysis of hospitality consulting. Includes opportunities techniques and methodologies used in practice. Lectures, case studies, projects and site visits are used. Prerequisites: HFT 4464 or HFT 4465.

HFT 6225 Multicultural Human Resources Management for the Hospitality Industry (3). A study of personnel, consumer relations, and diversity in the hospitality industry within a multicultural, multiracial, and multi ethnic society through an examination of value systems and cultural characteristics.

HFT 6226 Motivation and Leadership (3). Study of motivation, perception, learning, attitude formation, incentive theory, and job satisfaction, with emphasis on leadership and group task performance.

HFT 6227 Hospitality Management Training Systems (3). A course designed to develop and provide applications of proven training systems and methods for managers in the hospitality industry. The case study method will be used.

HFT 6228 Managing Self and Others in the Hospitality Industry (3). Students will increase managerial effectiveness by learning and applying a model for enhancing self-esteem and integrating that model into their managerial philosophy for the hospitality industry.

HFT 6245 Hospitality/Tourism Service Operations Management (3). Application of techniques to create, operate, staff, and evaluate service systems for hospitality/tourism enterprises. Emphasis on queues, forecasting demand, route and scheduling and quality management. Prerequisites: HFT 3505 or HFT 4509.

HFT 6246 Organizational Behavior in the Hospitality Industry (3). A survey of the concepts of organizational behavior and industrial psychology theory, from both the research and practical points of view. The course is designed to assist students in making sound decisions in the hospitality area by making them sensitive to the organizational parameters which influence their decisions.

HFT 6256 International Hotel Operations (3). A consideration of various environments within which the international hospitality firm operates. Organizational, financial, and marketing factors are of major concern. Emphasis is placed on those problems and constraints which are uniquely different from problems of firms engaged in domestic operations of a similar nature. Prerequisites: HFT 3403, HFT 3503.

HFT 6257 Contemporary Issues in the Lodging Industry (3). Students will explore emerging issues that impact domestic and global lodging. Content analysis to identify and analyze relevant industry problems will be used.

HFT 6278 Timeshare Management (3). Course covers management, marketing, sales legislation, financing, and budgeting of timeshare and vacation ownership properties. Opportunity to gain AEI certification.

HFT 6280 Globalization and Competitive Methods of Multinational Hospitality Companies (3). Course synthesizes theories and concepts of globalization, multinational strategy and international business studies and applies them in the analysis of multinational hospitality companies.

HFT 6291 Entrepreneurship in the Hospitality and Tourism Industry (3). This course will help students understand the rationale and methods leading to a major acquisition and the problems and solutions that go along with the decision. Prerequisites: HFT 3403 and HFT 4464.

HFT 6296 Strategic Management for Hospitality and Tourism (3). Developing competitive advantage in the Hospitality Industry including a strategy project where an incumbent faces off against a new entrant. Team will develop strategic business plans. Prerequisites: HFT 4464, HFT 3503, and computer literacy.

HFT 6297 Seminar in Management Methods (3). Class will be divided into small groups, each of which will meet regularly with the executive committee of an area hotel or restaurant. Each group will be, in reality, the junior executive committee for the property. The groups will come together periodically for analysis and discussion of their experiences, and to relate their experiences to principles of modern management.

HFT 6299 Case Studies in Hospitality Management (3). Case studies are used to analyze and integrate the various disciplines of hospitality management and the visitor industry. A critical attitude toward all administrative and management thought is encouraged. Prerequisite: HFT 4464.

HFT 6325 Hospitality Facilities Engineering and Management (3). Hospitality facilities management from value-oriented system engineering perspective emphasizing management responsibilities for efficiency in building design, operations and utilities systems. Prerequisite: HFT 3403.

HFT 6346 Design and Planning of Restaurants and Hotels (3). Advanced level of study of all aspects considered in designing and planning a restaurant or hotel. Includes lectures, case studies, and laboratory drawing exercises. Scheduling and cost controls considered. Prerequisite: HFT 3263

HFT 6404 Non Commercial and Contract Food Service Management (3). Advanced management of food service operations in noncommercial facilities, self operated and contract managed. Includes business and industry, health care, campus dining, correctional, and food service vending.

HFT 6429 Hospitality Asset Management (3). This course will present an overview of the role of hospitality industry asset managers as well as an in-depth study of the techniques and practices employed by them in their representation of ownership.

HFT 6446 Hospitality Enterprise Technologies (3). Advanced course in information technology in the

hospitality industry. Includes study of ERP software and data. Prerequisites: HFT 3423 or permission of the instructor.

HFT 6447 Hotel Information Systems (3). A seminar on computer systems and their applications within the hotel industry. An intensive study of a computerized property management system. All computer applications are examined, from reservations to the back office through a series of assignments and projects. Prerequisites: HFT 3423 or HFT 6446.

HFT 6448 Advanced Hospitality Computer Applications (3). Importing financial data, international features, linking workbooks, mapping geographical data, scenario manager, goal seeking and optimization problems will be covered. Prerequisites: HFT 3423 or equivalent.

HFT 6466 Hospitality Revenue Management (3). Introduce and develop the student's understanding of the scope and application of revenue management in service companies of the hospitality and tourism industries. Prerequisites: HFT 3503 or HFT 4509.

HFT 6472 Feasibility Studies for Tourism Projects (3). In-depth study of the tools and techniques available for evaluating financial feasibility and cost-benefit analysis of tourism projects. Prerequisites: ECO 2013 and HFT 4465.

HFT 6476 Feasibility Studies for the Hospitality Industry (3). In-depth study of the tools and techniques available for evaluating financial feasibility of a hospitality investment. Feasibility study required. Prerequisites: HFT 3503; HFT 4464 and HFT 4474.

HFT 6477 Financial Management for the Hospitality Industry (3). A study of financial management and its application in the Hospitality Industry. Topics include capital investment analysis, mergers and current financial issues. Emphasis is placed on maximizing shareholder value.

HFT 6478 Restaurant Development (3). A study of the procedures to research and develop a restaurant from concept to opening. Emphasis will be on market research, site development, financial feasibility, and the formulation of an operating plan for an individual restaurant. Prerequisites: HFT 3503 and HFT 4464.

HFT 6486 Investment Analysis for the Hospitality Industry (3). Advanced investment methods and opportunities with emphasis on securities of the hospitality industry, financing techniques, syndication, negotiations. Prerequisites: HFT 6446 and HFT 4464.

HFT 6494 Restaurant Information Systems (3). An in-depth study of principles relating to use of computer systems in the restaurant and food service industry. The student is required to implement a simulated restaurant on computer systems. This simulation includes personnel files, daily management, menu explosion and analysis, and inventory tracking. A research project will be assigned. Prerequisites: HFT 3423 or HFT 6446.

HFT 6507 Tourism Marketing on the Internet (3). An in-depth study of Internet Web site Hosting for tourism managers, including a detailed examination of the current practices of on-line tourism marketing and tourism

destination management systems. Prerequisites: HFT 3503, HFT 6555.

HFT 6525 Sales Tactics for Hospitality Industry (3). Advanced course investigating sales tactics and procedures used in hospitality sales environment. Practical application role plays and skill rehearsals used. Prerequisite: HFT 3503.

HFT 6526 Sales Management for the Hospitality Industry (3). Analyzes strategic processes for competitive sales management in hospitality industry. Uses critical thinking models, decision-making simulations and field operation assessments for managing sales function. Prerequisite: HFT 3503.

HFT 6555 e-Commerce for Hospitality and Tourism (3). Planning and managing e-Commerce for hospitality global distribution systems, including major opportunities, limitations, issues and risks from managerial perspectives. Prerequisites: HFT 3423 or permission of the instructor.

HFT 6562 Global Destination Marketing Organizations (3). An advanced study of the evolution and growth, mission, structure, funding, and roles of the different types of Destination Marketing Organizations worldwide. Prerequisites: HFT 4509 or equivalent.

HFT 6586 Research and Statistical Methods (3). A practical study of basic research and statistical methodology applied to a variety of hospitality industry research projects. Techniques for data collection and interpretation, and methods of reporting are considered.

HFT 6596 Marketing Management (3). Team-work analysis and recommended solution of an actual marketing problem and development of a marketing plan for hospitality business.

HFT 6605 Legislation and the Hospitality Industry (3). An advanced study of the legislative requirements imposed upon hospitality industry operators. Special emphasis is placed on the minimum wage law, sales tax, uniform provision and maintenance, tip credit, the determination of what constitutes hours worked for the various job categories, discrimination, and sexual harassment.

HFT 6607 Hospitality Real Estate Investment (3). Covers major concepts, principles, analytical methods and tools useful for making investment decisions regarding commercial hospitality real estate assets.

HFT 6609 Negotiating Strategies for the Hospitality Industry (3). Students study and practice negotiating strategies to reach more satisfactory outcomes from a business point-of-view. The hospitality industry requires skilled negotiations regarding management contracts, supplier agreements, alliance and franchise agreements.

HFT 6697 Hospitality Law Seminar (3). New laws and their impact on the hospitality industry are examined. Students research current legal issues and problems and explore the impact of new legislation on the hospitality industry.

HFT 6704 Contemporary Issues in Tourism (3). An in-depth study of current issues and trends confronting the fast development of the tourism activity at national and international levels.

HFT 6705 Management of Nature-Based Tourism (3). Exploration of research methods and findings related to eco-tourism. Review of effective management strategies for controlling nature-based tourism operations.

HFT 6706 Environmental Management Systems for Tourism (3). An in-depth examination of the environmental cost of tourism development. The effective implementation of international models as well as environmental practices for sustainable tourism development will be studied.

HFT 6712 Tourism Planning and Regional Development (3). An in-depth examination of the process of identifying needs, objectives and strategies for tourism development. The formulation and evaluation of tourism policies and plans will be studied. Prerequisites: HFT 3713 or permission of the instructor.

HFT 6715 Problem Solving for Travel and Hospitality (3). Practical discussion and exploration of issues pertaining to the operation and management in the travel and hospitality industry. The course provides creative problem solving solutions utilizing today's information technologies.

HFT 6746 Cultural Behavior in Tourism (3). The course introduces the major cultural groups of overseas visitors to the U.S. and identifies the cultural differences in preferences for specific tourism products and services between these groups and the main stream of the U.S. population.

HFT 6747 Tourism Marketing Research Methods and Applications (3). The nature and characteristics of tourism research are presented, elements of tourism research process examined, and the importance and strategic application of research to tourism decision making highlighted.

HFT 6756 Convention and Meeting Management (3). Advanced study of planning, arranging, marketing, implementing, and managing conventions and meetings. Prerequisite: HFT 3503.

HFT 6808 Advanced Catering Management and Research (3). This course focuses on research and examination of catering practices used in the catering profession. It includes an in-depth analysis of all components of the catering profession including management, legal aspects, catering contracts, menus and food displays, beverage service, catering equipment, catering logistics, human resources, etc.

HFT 6863 World of Wine and Food (3). An intensive study of wines from around the world and how they pair with foods. Guest chefs will prepare tapa size portions of food to be paired with local and specific wines. Prerequisite: 21 years old.

HFT 6876 Emerging Topics in Food and Beverage (3). An in-depth study of current issues and topics confronting the food and beverage industry and how they impact future business practices. Management implications addressed.

HFT 6879 Components of Wines for Beverage Managers (3). Designed for beverage management students to learn some basic language and scientific concepts employed in wine making. The chemical structures, as well as the aromas and tastes of various

specific components in wines will be investigated. These components will include those derived from the grape, the process of fermentation and storage, and will include common wine flaws. Prerequisite: Must be 21 years old.

HFT 6908 Directed Study in Tourism Studies (3). An opportunity for individuals interested in various aspects of planning, development, marketing, management and research in tourism to work on their own under the close supervision of an advisor. Prerequisites: Permission of the instructor and if the directed study is of a research nature, HFT 6586 is required.

HFT 6916 Hospitality Industry Research Project (3-9). An individualized business research-oriented project dealing with current problems in the hospitality industry. Topics and research methods must be approved by the graduate faculty before registration for the course. Prerequisite: HFT 6586.

HFT 6946 Graduate Internship (0-3). Structured hospitality practical training work experience involving training program and job rotations not previously performed. Ten week/300 hour minimum. Report and management project required. Prerequisites: Documented completion of 1000 hospitality related work hours of which at least 500 hours must be completed while enrolled at FIU. Permission of the instructor.

HFT 6972 Hospitality and Tourism Thesis (1-9). Design and preparation of an original research investigation in the hospitality and tourism discipline. Prerequisites: STA 5206, STA 6166, and STA 6167 and permission of the instructor.

HFT 7252 Advanced Contemporary Issues in the Hospitality Industry (3). Explores the major emerging issues or problems that impact the domestic and global lodging industry. The students will learn to use content analysis and other methodologies to identify and analyze relevant industry problems and issues facing management and personnel in the lodging industry.

HFT 7909 Advanced Independent Study (3). With permission from the Associate Dean, students may engage in independent research projects and other approved phases of independent study. Prerequisite: Permission of the instructor

School of Hospitality and Tourism Management

Dean

Joseph J. West

Associate Dean for Academics

Joan S. Remington

Associate Dean

Rocco M. Angelo

Faculty

Angelo, Rocco M., M.B.A. (*University of Miami*),

Professor, Management and Associate Dean

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Carter, Cheryl M., M.S. (*Florida International*

University), *Instructor, Tourism*

Cassidy, Patrick J., B.S. (*Florida International*

University), *Instructor, Wine Technology*

Del Risco, M. Nancy, Ph.D. (*University of Paris*),

Lecturer, Tourism Studies

Escoffier, Marcel R., M.S. (*Florida International*

University), *Associate Professor, Management*

Gump, Barry, Ph.D. (*University of California, Los*

Angeles), *Eminent Scholar and Visiting Professor,*

Beverage Management

Lattin, Gerald W., Ph.D. (*Cornell University*), *Professor*

Emeritus

Logan, Twila-Mae, Ph.D. (*Ohio State University*),

Visiting Assistant Professor, Finance

Moll, Steven V., M.S. (*Florida International University*),

Associate Professor, Management

Moran, Michael J., M.S. (*Florida International*

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Morgan, William J., Jr., Ph.D. (*Cornell University*),

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Remington, Joan S., J.D. (*Willamette University*),

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for Academics; Director, Career Development;

Director, The Institute for Hospitality and Tourism

Education and Research

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Suh, Eunji, Ph.D. (*University of Nevada, Las Vegas*),

Assistant Professor, Finance

Talty, David M., B.S. (*Florida State University*),

Instructor, Management

Tanke, Mary L., Ph.D. (*Purdue University*), *Associate*

Professor, Management

West, Joseph J., Ph.D. (*Virginia Polytechnic Institute*

and State University), *Professor, Management and*

Dean

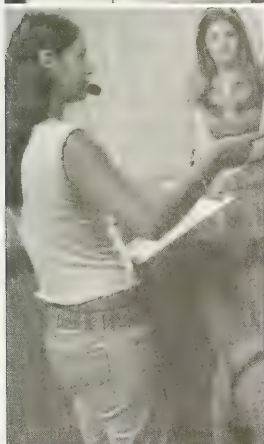
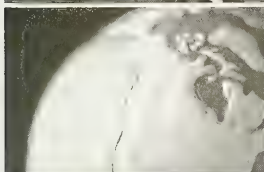
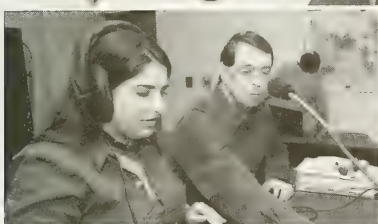
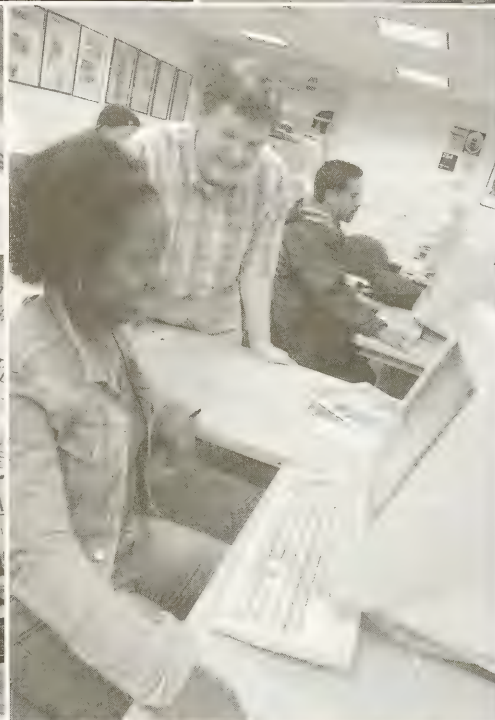
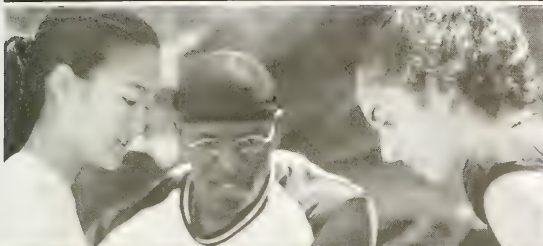
Zhao, Jinlin, Ph.D. (*Virginia Polytechnic Institute and*

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Director, Graduate Program



FLORIDA INTERNATIONAL UNIVERSITY



SCHOOL OF
**JOURNALISM
AND MASS
COMMUNICATION**

School of Journalism and Mass Communication

Lillian Lodge Kopenhaver, *Professor and Dean*

Allan Richards, *Associate Professor and Interim Associate Dean*

Margo Berman, *Associate Professor*

Frederick R. Blevens, *Professor*

Yolanda Cal, *Assistant Professor*

Jane Daugherty, *Associate Professor*

Humberto Delgado, *Instructor*

Mario Diamant, *Associate Professor*

Lynn Farber, *Associate Professor*

Gregg Fields, *Associate Professor*

Fernando Figueredo, *Associate Professor and Interim*

Chair for Advertising and Public Relations

Rosanna Fiske, *Associate Professor*

Hugh Gladwin, *Director, Institute for Public Opinion Research*

Ann Goraczko, *Instructor and Coordinator of Institute for Public Opinion Research*

Kate MacMillin, *Instructor*

Lilliam Martinez-Bustos, *Assistant Professor*

Brian Parker, *Assistant Professor*

Juliet Pinto, *Associate Professor*

Teresa Ponte, *Associate Professor and Interim Chair For Journalism and Broadcasting*

Neil Reisner, *Associate Professor*

Sigal Segev, *Assistant Professor*

Michael Sheerin, *Assistant Professor*

Carlos Suris, *Instructor and Coordinator of Student Resource Center*

Lorna Veraldi, *Associate Professor*

Mercedes Vigon, *Associate Professor*

Maria Elena Villar, *Assistant Professor*

John Virtue, *Director, International Media Center*

Master of Science in Mass Communication

The School of Journalism and Mass Communication is fully accredited by the Accrediting Council on Education in Journalism and Mass Communications. Only 25 percent of all Schools of Journalism and Mass Communication in the United States are fully accredited. The graduate program of the School of Journalism and Mass Communication offers professional education leading to the M.S. in Mass Communication with current specializations in student media advising, integrated communications: advertising and public relations, and Spanish-language journalism. The orientation of the graduate program is primarily professional, not theoretical. The program is designed to enhance graduates' abilities to work in the mass communication professions.

Admission Requirements

To be eligible for admission to the graduate program, applicants must meet the following requirements:

1. All applicants must have a bachelor's degree from a regionally accredited college or university.
2. All candidates must show promise of success in graduate studies. Applicants must meet the following criteria, in addition to any program-specific requirements:
 - A. Meet minimum GPA: Candidates must have a minimum grade point average (GPA) of 3.0

earned during the last 60 hours of upper-level work.

- B. Students must submit a 500-750 word essay. Contact department for specific topic.
 - C. Students must submit a professional and current resume.
3. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required. A minimum score of 500 on the TOEFL is acceptable for students applying into the Spanish-language master's program. Candidates who have passed the TOEFL more than two years before they apply for admission to the program have to repeat the test with the required score.

If a student has the minimum GPA of 3.0, he/she will not be required to take the GRE/EXADEP, unless the test is required for a specific scholarship or reduced-tuition program.

Application Procedures

A student applying for admission to the graduate program must:

1. Complete online graduate admissions application available at <http://gradschool.fiu.edu>.
2. Have two official copies of transcripts from all colleges or universities attended sent to the Graduate Admissions Office. (Copies submitted by applicants will be rejected.)
3. Submit appropriate test scores and documents to the Graduate Admissions Office.

Admission Deadline

Students wishing admittance to the graduate program must apply at least six weeks prior to the start of classes of their first term of graduate study and submit all required scores and paperwork.

Degree requirements

Plan of Study/Commencement of Program

Upon admission to the graduate program in mass communication, each student will be assigned a faculty advisor by the appropriate department chair. In most cases, this will be the director of the appropriate graduate program. The advisor will be responsible for developing the student's plan of study, requesting applicable transfer of credit where appropriate, monitoring the student's academic progress, and ensuring the fulfillment of the requirements for the master's degree by completing the student's Program of Studies with the student. This will also include a timetable for completion of the work. Any changes in the plan must be approved by the faculty advisor and the appropriate chairperson. It is also the faculty advisor's responsibility to complete a Graduate GPA Course Inclusion Form for classes that are part of the master's program but were taken prior to the student's full admission and/or are lower division classes.

In addition to the development of a plan of study, the advisor must evaluate any deficiencies including, but not

limited to the following areas which may require additional course work.

Competency in Statistics

Competence in the fundamentals of statistics is required of all graduate students. In order to register for MMC 5440 (Applied Research Methods in Mass Media) students must demonstrate a knowledge of statistics in one of three ways: by having taken a course in statistics within the last three years, passing an examination in the subject, or taking a special seminar, offered simultaneously with the commencement of the graduate research course.

Professional Experience

Professional experience in a field directly related to the specialization is an advantage. Applicants without such professional experience may be required to complete up to 9 credits of additional undergraduate course work and/or to complete an internship with a professional organization. After an interview with the applicant, the student's faculty advisor will determine the amount of undergraduate work and the undergraduate courses to be completed.

Transfer Credit

Students may petition the appropriate advisor to transfer up to six hours of graduate credit toward the degree. To be approved for transfer, the courses must have been previously taken at a regionally accredited college or university; the student's advisor must judge the courses relevant to the student's plan of study; the student must not have used the credits toward another degree; the student must have earned a 'B' or higher in the courses, and meet the University requirements. No transfer courses will substitute for skills courses in any area of specialization in the SJMC master's program. All transfer credit must have been completed within the six-year period preceding the date the degree is granted.

Time Limit

All work applicable to the degree, including transfer credit, must be completed within six years of first enrollment in the master's program.

Grades

Students must maintain a minimum GPA of 3.0 in all courses required for the degree. No more than two 'C' grades will be allowed.

Professional Project, Thesis

Students complete a professional project in their areas of specialization. Work on the project will generally be taken during the final semester. Projects will be graded by the student's graduate committee. Students must receive a 'B' or higher on the project for it to be accepted. Students may also opt to do a thesis; GPA requirements are the same.

Required Courses

To earn the M.S. in Mass Communication, students must meet the following requirements:

1. Students must take at least 36 hours of acceptable graduate credit. Of those hours, all courses in the SJMC taken toward graduation must be at the graduate level.
2. At least 27 hours must be in School of Journalism and Mass Communication courses.

Student Media Advising

Designed primarily for journalism teachers and/or student media advisors on all levels, the program trains

teachers/advisors or those aspiring to the profession in areas related to everyday work.

Core Curriculum

All students must take the following core courses:

MMC 6402	Theories of Mass Communication	3
MMC 5440	Applied Research Methods in the Mass Media	3
MMC 6950	Professional Project	3
In addition to the core courses, students in the student media advising specialization must take the following courses:		
JOU 5806	Student Media Advising	3
MMC 5207	Ethical and Legal Foundations of the Student Press	3
MMC 6635	Contemporary Issues in Mass Communication	3
VIC 5205	Trends in Graphics and Design	3

Students must also take two additional three-credit graduate courses in the School of Journalism and Mass Communication in an appropriate area of emphasis. Courses must be approved by the student's advisor.

Nine hours must be in a field of concentration outside the School of Journalism and Mass Communication. A minimum of three of those credits have to be at the graduate level (5000 or 6000 level).

Integrated Communications: Advertising and Public Relations (ICAP)

This evening and Saturday morning ICAP program is designed to give students a general background in strategic communications and to help them prepare for advancement in advertising, public relations and integrated communications careers – whether corporate, agency or non-profit. It is designed for students who work full time. While a few students take nine credit hours per semester, many take only three or six.

For additional information about the ICAP program, please contact the program coordinator at 305-919-5625 or email sjmc@fiu.edu.

Core Curriculum (9 credits)

All students must take the following core courses:

MMC 6402	Theories of Mass Communication	3
MMC 5440	Applied Research Methods in the Mass Media	3
MMC 6950	Professional Project	3
In addition to core courses, ICAP students must take the following program courses: (27 credits)		
ADV 6805C	Advertising and Public Relations Creative Strategy	3
MMC 6416	The Literature of Integrated Communications	3
MMC 6635	Contemporary Issues in Mass Communication	3
PUR 5602	Integrated Communications Proseminar	0
PUR 5406	Multi-Cultural Communications	3
PUR 6607	Advertising and Public Relations Management	3
PUR 6806	Integrated Communications Planning	3
PUR 6935	Advanced Integrated Communications Seminar	3

Plus: Two (3) credit elective courses chosen in conjunction with the graduate coordinator in marketing, management, or behavior theory.

Integrated Communications: Advertising and Public Relations – Creative Track

The ICAP creative program is a rigorous, tuition-plus-fee program that is limited to a select number of qualified students who have shown above average creative potential and wish to combine a theoretical knowledge of communications with a more in-depth exposure to creative concepts. A portfolio review is required for admission.

The ICAP Creative Track incorporates these unique features:

- The Advice of the Miami Ad School
- Dialogue with top creative personnel
- Access to Miami Ad School guest speakers and facilities
- Five semesters of courses, offered on a lock-step basis
- The option of a semester away

For more detailed information about the ICAP Creative Track please contact the program director at 305-919-5520 or by email sjmc@fiu.edu.

Core Curriculum (9 credits)

All students must take the following core courses:

MMC 6402	Theories of Mass Communication	3
MMC 5440	Applied Research Methods in the Mass Media	3
MMC 6950	Professional Project	3

In addition to core courses, ICAP students must take the following program courses: (27 credits)

ADV 6805C	Advertising and Public Relations Creative Strategy	3
PUR 5602	Integrated Communications Proseminar	0
PUR 5406	Multi-Cultural Communications	3
PUR 6806	Integrated Communications Planning	3
PUR 6935	Advanced Integrated Communications Seminar	3
VIC 5205	Trends in Graphics & Design	3
ADV 6503	Seminar in Advanced Creativity	12

Spanish-Language Journalism with Emphasis in Investigative Reporting

The Spanish-language journalism track is geared toward Spanish-speaking students educated in the United States who wish to expand their professional options in the Spanish-language media market. It is also designed for Latin American students and journalists who need to acquire writing and reporting skills to work for Spanish print or broadcast media.

This is a one-of-a-kind program offered entirely in Spanish, and it specializes in investigative journalism, a concept incorporated in all the skills courses.

The program, designed to start in the fall, may be completed in one year and consists of 36 credits (12 courses of three credits each). Two are electives and can be taken outside SJMC. The courses are only offered once a year in the semester indicated below, except for the Final Professional Project, which is offered in the fall, spring and summer terms.

Course Offerings (36 credits)

FALL

RTV 6309	Advanced Broadcast News Writing	3
JOU 6107	Advanced Public Affairs Reporting (Pre/co requisite: JOU 6xxx – Writing Theories)	3
MMC 5440	Applied Research Methods	3
JOU 6xxx	Writing Theories	3

SPRING

JOU 6118	Investigative Reporting Techniques (Prereq: JOU 6xxx – (Writing Theories)/ MMC 5440)	3
RTV6237	Advanced on Camera News Reporting (Prerequisite: JOU 6xxx – Writing Theories)	3
JOU 6119	Advanced Print News Reporting (Prerequisite: JOU 6xxx – Writing Theories)	3
VIC 6005	Visual and Online Communication	3
SUMMER		
MMC 6635	Contemporary Issues in Mass Communication	3
Elective (graduate level approved by the coordinator)		3
Elective (graduate level approved by the coordinator)		3
MMC 6950	Mass Communication Professional Project (Prerequisite: permission of instructor)	3

Spanish Language Journalism with a Track in Latin American and Caribbean Studies

The Spanish-Language Master's Program in Journalism with a track in Latin American and Caribbean Studies is designed for graduate students who are new to journalism, and for those who want to further their knowledge in this field. It also offers them the opportunity to specialize in areas of political science that are fundamental for journalists who want to cover Latin American issues. This interdisciplinary program will enable students to delve into the political and historical Latin American context of the stories they will cover as reports. As a result, they have a better understanding of the issues they will be confronted with, they will produce in-depth journalistic work.

The program will consist of 36 credits (12 courses of three credits each). Four courses will be offered through the Latin American and Caribbean Center (LACC) [in English] and eight by the School of Journalism and Mass Communication (SJMC) [in Spanish]. The professional Project must be completed in Spanish, and it will be supervised and graded by faculty members of SJMC's Spanish-Language Master's Program in Journalism.

Course Offerings (36 credits)

LACC Courses

INR 6008	Colloquium in International Studies	3
ANC 5496	Social Research and Analysis	3
LAS 6003	Survey of Latin America and the Caribbean	3
LAH 5935	Topics in Latin American History	3

SJMC Courses

JOU 6193	Thinking Like a Writer	3
JOU 6119	Advanced Print News Reporting	3
RTV 6309	Advanced Broadcast News Writing	3
MMC 6402	Theories of Mass Communication	3
JOU 6107	Advanced Public Affairs Reporting	3
MMC 5440	Applied Research Methods	3
JOU 6118	Advanced Investigative Reporting Techniques	3
MMC 6950	Professional Project	3

Spanish-English Language Journalism Track

The Spanish-English language journalism track caters to Spanish-speaking students educated in the United States

who wish to expand their professional options in the English-language and rich Spanish-language media market. It is also designed for Latin American students and journalists who need to acquire writing and reporting skills to work for Spanish and English print and broadcast media.

The courses and the bilingual component of this program also intend to meet a demand for bilingual training in journalism in the United States, stemming from increasing media coverage of Hispanic communities and the consequent need for multiethnic newsrooms.

The Spanish-English Master's Program in Journalism consists of 36 credits (12 courses of three credits each). Six are offered in English and six, in Spanish. Of the six courses in English, two are offered in areas outside journalism. Students must complete their final project in English.

Course Offerings (36 credits)

Courses in Spanish

JOU 6193	Thinking Like a Writer	3
JOU 6119	Advanced Print News Reporting	3
RTV 6309	Advanced Broadcast News Writing	3
JOU 6107	Advanced Public Affairs Reporting	3
MMC 5440	Applied Research Methods	3
RTV 6xxx	Advanced On-Camera Reporting	3

Courses in English

MMC 6402	Theories of Mass Communication	3
VIC 6005	Visual and Online Communication	3
JOU 6118	Advanced Investigative Reporting Techniques	3
MMC 6950	Professional Final Project	3

Courses in English (outside SJMC)

INR 6008	Seminar on Latin American Politics	3
LAH 5935	Comparative History of State and Society in Latin America	3

Business Journalism Track

Admission Requirements

To be considered for admission to the graduate program in the School of Journalism and Mass Communication (SJMC), the following criteria must be met:

• Degrees

A student seeking admission into a graduate program of the University must have a bachelor's degree or equivalent from a regionally accredited institution or, in the case of foreign students, an institution recognized as an institution of higher learning.

• Minimum GPA

A minimum grade point average (GPA) of 3.0 earned during the junior and senior undergraduate years.

• Entrance Examination

The Graduate Record Examination (GRE) is required for admission into all programs taught in English. In some cases, the Graduate Management Admission Test (GMAT) is accepted upon the approval of the graduate coordinator. The minimum score for admission consideration on the GRE is at least 1000 total (verbal and math combined), with a minimum of 500 on the verbal portion. Graduates of non-U.S. institutions must be academically eligible for further study in the country where the degree was earned. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International

English Language Testing System (IELTS). Applicants must receive a total of 80 on the iBT TOEFL – equivalent to 550 on the paper-based version, or 213 on the computer-based version of the Test of English as a Foreign – or 6.3 overall on the IELTS.

• Resume

All applicants must submit a professional resume.

Course Offerings (36 credits)

SJMC

JOU 6358	Business Reporting: Public Affairs	3
JOU 6352	Advanced Business Feature Writing	3
JOU 6931	Special Topics/Economic News Reporting	3
MMC 5932	Special Topics in Journalism/Advanced Economics Reporting	3
JOU 6355	Applied Research Methods in Business Journalism	3
JOU 6125	The Cyberjournalist	3
MMC 6950	Mass Communication Professional Project	3
MMC 6402	Theories of Mass Communication	3

Business

ACG 6026	Accounting for Managers	3
FIN 5307	Financial Markets and Analysis	3
FIN 6428	Corporate Finance	3

General

One course from the following:

FIN 6656	Latin American Financial Markets	3
FIN 6638	International Capital Markets	3
ECS 5406	Latin American Economies	3
ECS 7435	Economics of the Caribbean	3
ECS 7445	Economics of Central America	3
ECO 5709	The World Economy	3
ECO 5735	Multinational Corporations	3
CPO 6105-6721	Seminars on Regional Politics	3
MAR 6805	Marketing Management in the Global Environment	3
MAN 6606	International Business Environment	3
INR 5007-6936	Seminar on International Politics	3

Certificate Programs

Student Media Advising

This professional certificate program is designed primarily for journalism teachers and for student media advisors on all levels and for those aspiring to the profession. This program will satisfy the requirements of the certification, recertification or incentive credits for current public school teachers in the field. The Certificate in Student Media Advising requires 15 credits to be taken as follows:

Required Courses (9 credits)

JOU 5806	Student Publications Supervision	3
MMC 5207	Ethical and Legal Foundations of the Student Press	3
VIC 5205	Trends in Graphics and Design	3

Elective Courses (6 credits)

Students must take two of the following:

MMC 6402	Theories of Mass Communication	3
MMC 6635	Contemporary Issues in Mass Communication	3
PUR 4101	Publications Editing and Design	3

or
other courses upon approval of the faculty advisor.

Integrated Communications: Advertising and Public Relations

The objective of the Integrated Communications: Advertising and Public Relations certificate is to train interested community professionals in up-to-date strategies and methodologies in integrated communications: advertising and public relations

Required Courses (9 credits)

ADV 6805C	Advertising and Public Relations Creative Strategy	3
PUR 5602	Integrated Communications Proseminar	0
PUR 6607	Advertising and Public Relations Management	3
PUR 6806	Integrated Communications Planning	3
Plus any two of the following (6 credits)		
MMC 5440	Applied Research Methods in the Mass Media	3
MMC 6635	Contemporary Issues in Mass Communication	3
PUR 5406	Multi-Cultural Communication	3
PUR 6935	Advanced Integrated Communications Seminar	3

Spanish Language Journalism: Investigative Reporting

The objective of the Professional Certificate in Spanish Language Journalism is to develop skills and techniques that will allow working journalists to be more responsive to the demands of their profession as well as the opportunity to become more familiar with Spanish-language journalism in general. The focus of the program will be on reading, writing, and thinking. All courses will be taught in Spanish. Some courses may be offered off-campus.

Interested students should contact the department for additional information and course requirements.

Joint Certificate in Integrated Marketing Communications: Latin American Certification

The Joint Graduate Certificate in Integrated Marketing Communications: Latin American Certification is an 18-hour program with two required courses each from ICAP and International Relations, plus several electives from both areas. The objective of this graduate level certificate program is to prepare working communications professionals with the skills necessary to develop and implement communications programs in Latin America. It is also appropriate to provide international relations professionals who have gained communications responsibilities with a broad overview of the basic concepts and tasks of mass communications.

Required Courses – ICAP Program

PUR 6806	Integrated Communication: Account Planning (Prerequisite: Permission of the instructor)	3
PUR 6607	Advertising and Public Relations Management (Prerequisite: PUR 6806)	3

Elective Courses – ICAP Program

MMC 6402	Theories of Mass Communication (Prerequisite: Permission of the instructor)	3
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PUR 6935	Advanced Integrated Communications Seminar (Prerequisite: Permission of the instructor)	3
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Required Courses – International Relations

INR 6107	U.S. Foreign Policy	3
INR 6609	Dynamics of International Relations in the 20th Century	3

Elective Courses – International Relations

INR 4031	The Media and International Relations	3
INR 6089	International Relations and Human Rights	3
INR 6209	Comparative Foreign Policy of Latin America	3
INR 6604	International Relations Theory I	3
INR 6606	Political Psychology of International Relations	3

Current selections from the Latin American and Caribbean Center as offered.

Course Descriptions

Definition of Prefixes

ADV-Advertising; JOU-Journalism; MMC- Mass Media Communication; PUR-Public Relations; RTV-Radio-Television; VIC-Visual Communication.

All courses required for the degree will be offered at least once during the term of the student's enrollment.

ADV 6355 Advertising and Society (3). The relationship between advertising, economic, political, moral, and ethical issues.

ADV 6503 Seminar in Advanced Creativity (3). Theoretical and practical application of variable topics including creative problem solving, design, web advertising, pop culture, and IMC tools. Progressive level of difficulty. Prerequisite: Permission of the instructor.

ADV 6805C Advertising and Public Relations Creative Strategy (3). Focuses on the conceptualization of breakthrough strategies and their application to all integrated communication tools. Prerequisite: PUR 6806. (Offered at least once a year).

JOU 5806 Student Media Advising (3). Designed to assist teachers and advisors of journalism at the high school and junior college level, this course emphasizes the technical aspects of producing student newspapers, yearbooks, and magazines, as well as the legal and ethical considerations facing today's advisor. In addition, attention is given to matters pertaining to curriculum and methodology for effective journalistic instruction. (Offered at least once a year).

JOU 6107 Advanced Public Affairs Reporting (3). A journalist's examination of the judicial system, from police headquarters to the courtroom. Prerequisite: Graduate standing.

JOU 6118 Investigative Reporting Techniques (3). The practice of investigative reporting techniques emphasizing problem solving in developing stories from conception to finished product. Prerequisites: JOU 6193 and MMC 5440.

JOU 6119 Advanced Print News Reporting (3). Traditional and innovative reporting techniques, from

searching archives and interviewing, to manipulating databases and scouring the Internet. Students also wrestle with legal, ethical dilemmas. Prerequisite: JOU 6193.

JOU 6125 The Cyberjournalist (3). Students progress beyond a simple knowledge of how to use electronic databases into the realm of mining and manipulating vast data pools such as the U.S. Census.

JOU 6183 Judicial System Reporting (3).

JOU 6185 Covering the City I (3). Basic reporting. Students cover breaking stories against daily deadlines. Readings/viewings are aimed at helping students analyze and compare a wide range of media. Prerequisite: Graduate standing.

JOU 6186 Covering the City II (3). Theme coverage of forces (economics, politics, etc.) that shape cities. Enterprise reporting with significance and context, and its legal and ethical implications. Includes municipal-budget analysis. Readings/viewings: Original works or original thinkers.

JOU 6187 Covering the City III (3). Students produce the prototype for a city magazine, from start to finish. Readings: a broad sampling of magazines.

JOU 6193 Thinking Like a Writer (3). Principles and techniques that are common to good writing, regardless of the medium. Students learn to read, observe and think as writers.

JOU 6194 Thinking Like a Writer II (3). Continuation of 1st writing course, with emphasis on elegance at sentence level. Also explores interrelationships of story telling, editing and design. Readings: Poynter anthology.

JOU 6196 Thinking Like a Writer III (3). Continuation of 1st and 2nd semester writing courses, with emphasis on producing the long piece. Direct support of the writing of Professional Project. Readings/viewings: Pulitzer, Emmy winners.

JOU 6352 Advanced Business Feature Writing (3). Advanced study in the development of in-depth business articles, emphasizing the crucial role of bright writing and eye-catching graphics.

JOU 6355 Applied Research Methods in Business Journalism (3). Techniques in locating and understanding financial data of corporations and other entities whose finances are subject to public disclosure as well as demographic and economic research produced by government, universities, and private research organizations.

JOU 6358 Business Reporting: Public Affairs (3). Advanced study in the use of economic analysis and financial investigation to analyze social and demographic trends for business reporting.

JOU 6931 Seminar on Special Topics (1-3). Instruction in specialized areas of journalism. Prerequisite: Graduate standing

MMC 5207 Ethical and Legal Foundations of the Student Press (3). Examines ethical and legal foundations underlying the operation of the student press on American campuses, stressing both rights and

responsibilities and how to organize publications to protect both. (Offered at least once a year).

MMC 5440 Applied Research Methods in the Mass Media (3). An advanced course in the acquisition and use of secondary data, including media data, as well as the design, execution and utilization of research studies. Students will conduct an original proprietary study. Prerequisites: STA 3013 or equivalent. Permission of the instructor. (Offered at least once a year).

MMC 5932 Special Topics Seminar (3). A variable topic seminar dealing with issues of interest to the community. Examples are rights of high school journalists, cable TV, the use of mini-computers in creative communication. Prerequisite: Permission of the instructor. (Offered at least once a year).

MMC 6402 Theories of Mass Communication (3). Examines theories and processes of mass communication as well as media responsibility to society and the social and ethical responsibility of communicators. (Offered at least once a year). Prerequisite: Permission of the instructor.

MMC 6416 The Literature of Integrated Communication (3). Survey of current and important literature in the field of integrated communications and its importance and application for ICAP managers. Prerequisite: Permission of the instructor.

MMC 6635 Contemporary Issues in Mass Communication (3). Contemporary issues regarding media responsibility to society and the social responsibility of communicators. Analysis and evaluation of media ethics and performance. Prerequisite: Permission of the instructor. (Offered at least once a year).

MMC 6950 Mass Communication Professional Project (3). The professional project is designed to demonstrate the student's excellence in an area of communication study. Must be completed within one semester. Prerequisites: Completion of 27 credit hours and permission of the instructor.

MMC 6951C Professional Project II (1). Demonstrates the student's excellence in an area of communication study. Must be taken if student doesn't complete MMC 6950 in one semester. Prerequisite: MMC 6950.

PUR 5406 Multi-Cultural Communications (3). Explores the multi-cultural dimensions of communications with diverse audiences both internationally and within the United States. Prerequisite: Permission of the instructor.

PUR 5602 Integrated Communications Proseminar (0). Lectures/discussion by industry professionals and faculty on various components and applications of Integrated Communications: Advertising & Public Relations (ICAP).

PUR 6607 Advertising and Public Relations Management (3). Operations of integrated advertising and public relations activities for entrepreneurial ventures and companies using case studies on budgeting, ethics, media planning, promotion and direct marketing. Prerequisite: PUR 6806.

PUR 6806 Integrated Communications Planning (3). Advanced study in developing, planning and evaluation strategic communications programs for entrepreneurial

businesses and companies. Prerequisite: Permission of the instructor. (Offered at least once a year).

PUR 6935 Advanced Integrated Communications

Seminar (3). A series of readings, discussions and presentations immerse students in contemporary issues in Advertising and Public Relations. Prerequisite: Permission of the instructor. (Offered at least once a year).

RTV 5801 Telecommunication Management Structures

(3). Intensive study of telecommunication management problems, theory of same, solutions of same through practical application and examination of case studies. Prerequisite: Graduate standing.

RTV 5935 Seminar in International Comparative

Broadcasting Systems (3). Introduction to international telecommunication systems with special emphasis on broadcasting. Comparison with other countries. Prerequisite: Graduate standing or permission of the instructor.

RTV 5936 Seminar in New Mass Communication

Technologies (3). Discussion of new communication technologies and their influence on the society. Prerequisite: Graduate standing.

RTV 6237 On Camera Reporting (3). Techniques to

strengthen "on camera" reporting skills. Students will be challenged to share their progress, design story ideas, and improve creative and communicative skills in front of a TV camera. Prerequisite: RTV 6309.

RTV 6309 Advanced Broadcast News Writing (3).

Advanced instruction and practice in news writing, reporting and interviewing for broadcast media. Prerequisite: MMC 4940.

RTV 6465C Field Production Practicum (3). The student

will be responsible for the organization and complete pre-production, production, and post-production of his/her project(s). Prerequisite: Graduate standing.

RTV 6468C Studio Production Practicum (3). The

student will be responsible for the organization and complete pre-production, production and post-production of his/her project(s). Will also be required to do directing and I.D. work. Prerequisite: Graduate standing.

RTV 6937 Decision Making in Broadcast Journalism

(3). The roles and ratings, research, visuals, technology and non-news management in choice of news personnel, assignments, content and scheduling. analysis of legal and ethical implications. Prerequisite: Graduate standing.

VIC 5205 Trends in Graphics and Design (3). Design

principles and how they relate to trends in student and professional media, including newspapers, magazines and yearbooks. Deals with graphics, packaging, typography and modern design. Prerequisite: Permission of the instructor. (Offered at least once a year). (Supplies fee assessed).

VIC 6005 Visual and Online Communication (3). The

course explores the relationship between images and messages in the media. Topics include the role and effects of imagery in news and documentary presentations, ethics of visual messages and the impact of technology on visual journalism. Plus, how all traditional visual design and presentations converge in present day online media.

School of Journalism and Mass Communication

Dean
Interim Associate Dean

Lillian Lodge Kopenhaver
Allan Richards

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Berman, Margo, M.M. (*University of Miami*), Associate Professor, Journalism and Mass Communication

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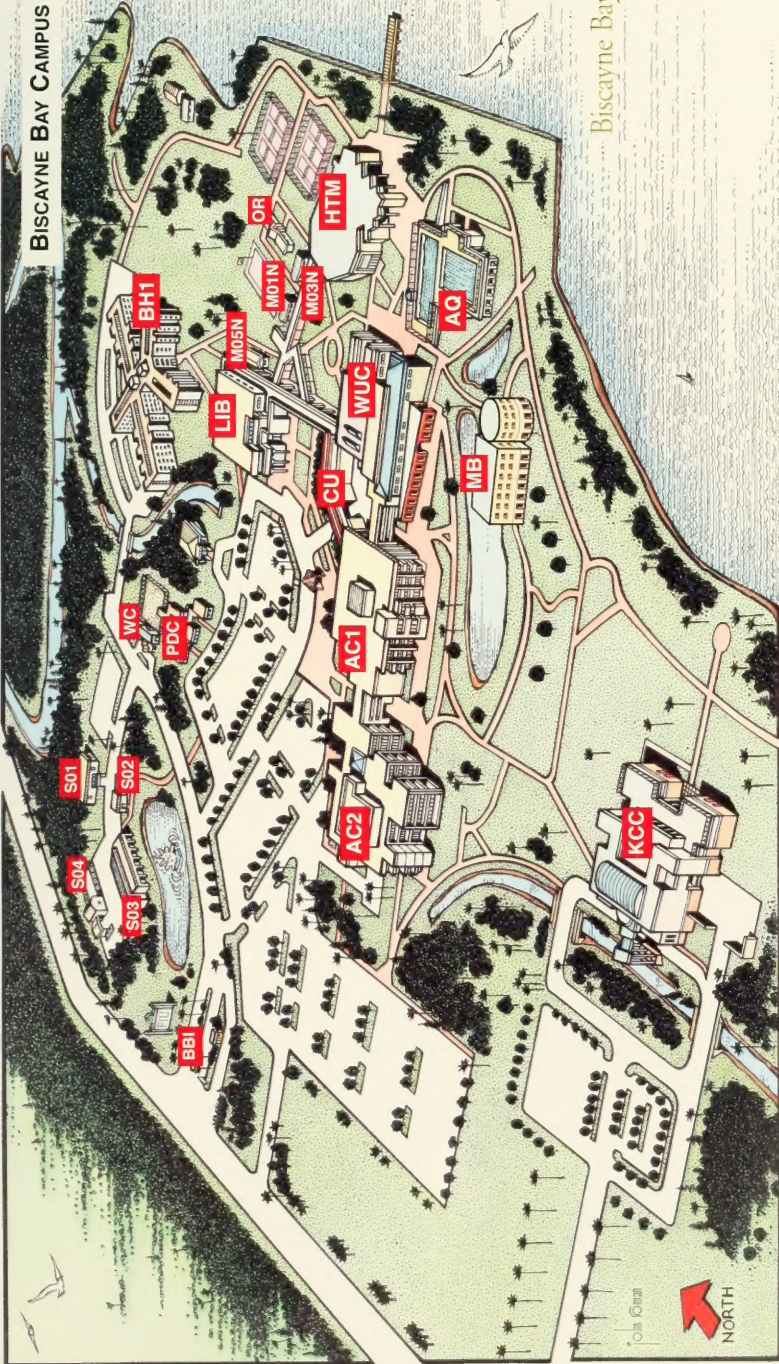
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BISCAYNE BAY CAMPUS

Biscayne Bay



AC 1	Academic I	HTM	Hospitality and Tourism Management	OR	Outdoor Recreation
AC 2	Academic II		Southern Wine & Spirits Beverage Management Center	PDC	HRS Practice Center, Classroom and Administration Bldg.
AQ	Aquatic Center	KCC	Kovens Conference Center	S01	Central Receiving
BBI	Biscayne Bay Campus Information Booth	LIB	Library	S02	Public Safety
	Bay Vista Housing	MB	Marine Biology	S03	Physical Plant
	Central Utilities	M01N	Trailer 1	SHC	Student Health Center
		M03N	Trailer 3	WC	Wellness Center
		M05N	Trailer 5	WUC	Wolfe University Center

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